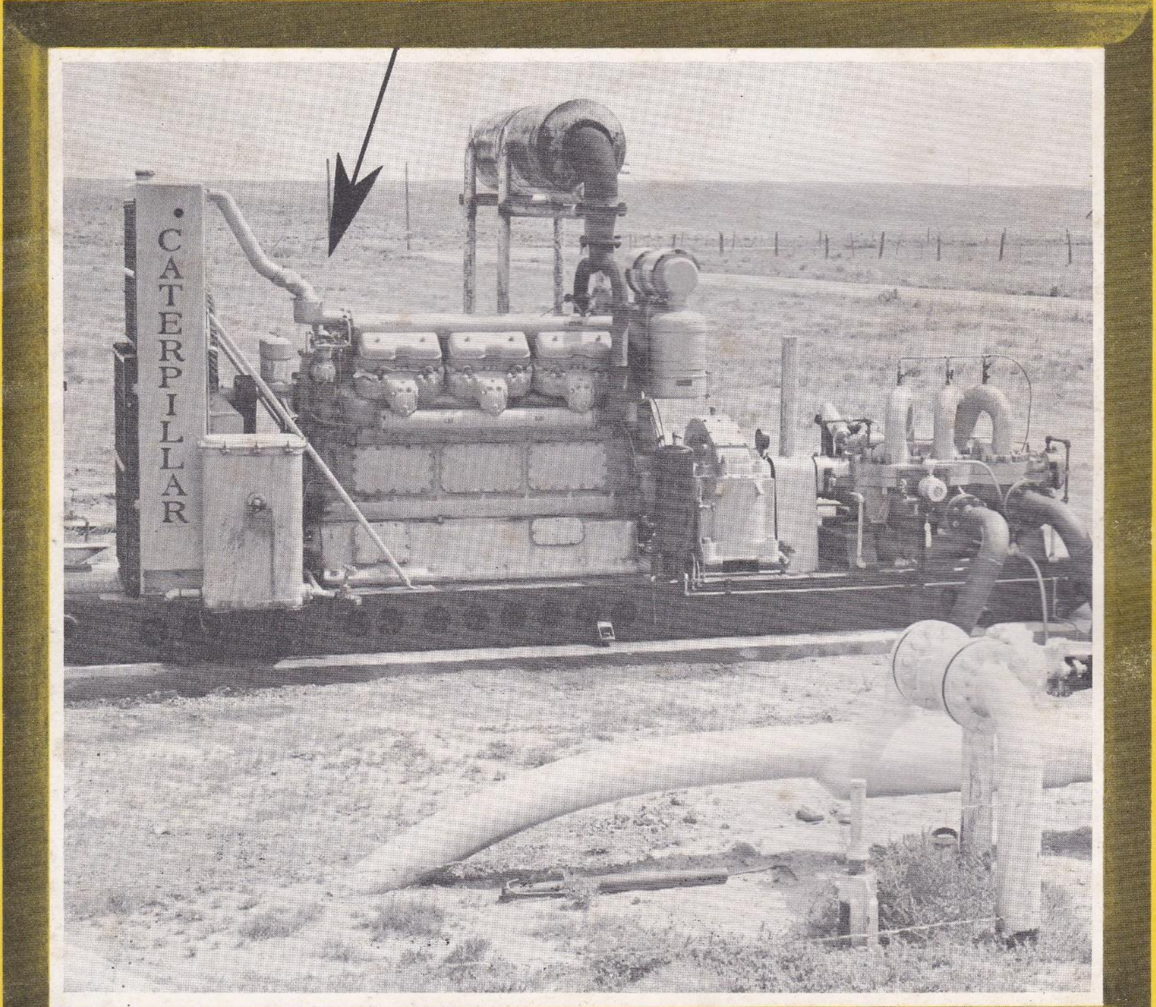
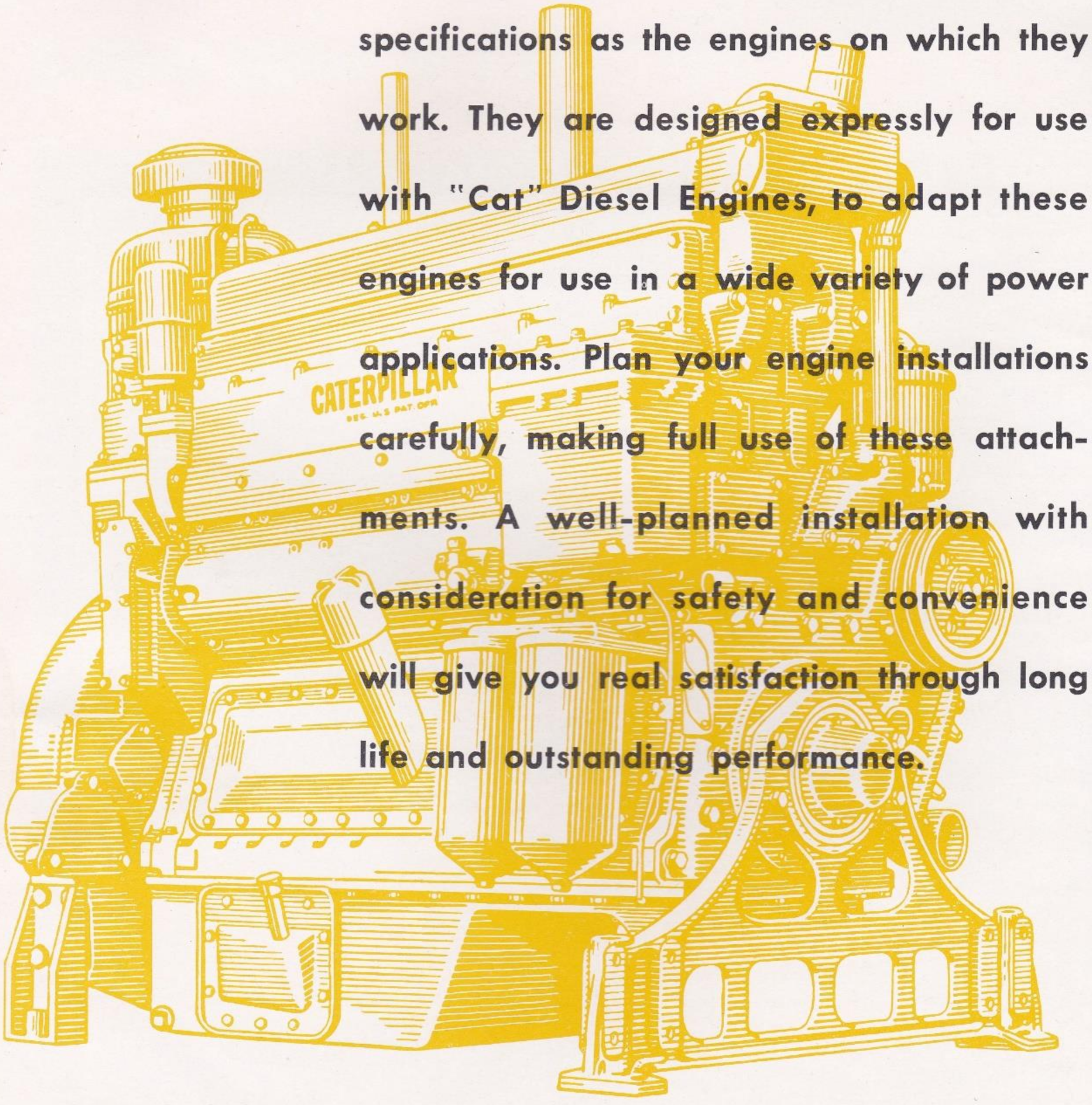
ATTACHMENTS

FOR YOUR

"CATERPILLAR" DIESEL ENGINE



Attachments for your "Caterpillar" Diesel Engines are built to the same exacting specifications as the engines on which they work. They are designed expressly for use with "Cat" Diesel Engines, to adapt these engines for use in a wide variety of power applications. Plan your engine installations carefully, making full use of these attachments. A well-planned installation with consideration for safety and convenience will give you real satisfaction through long life and outstanding performance.



GENERAL INDEX

FOR COMPLETE INDEX SEE PAGES 30 AND 31

ATTACHMENTS FOR:

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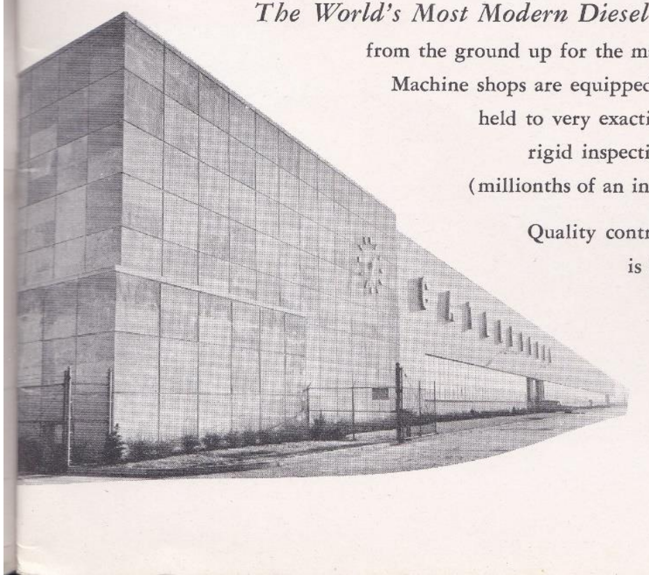
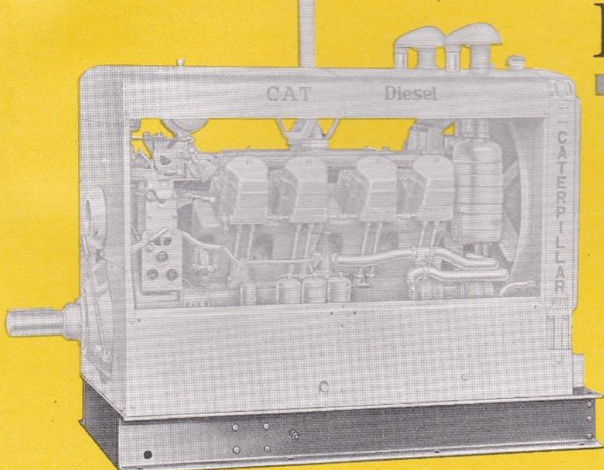
NOTE: The attachment is available for each of the models listed therewith...
Ind. indicates industrial engine...E.S. indicates electric set...Mar. indicates marine engine.



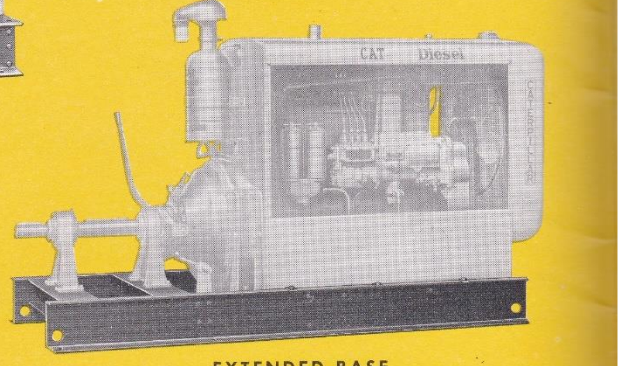
The World's Most Modern Diesel Engine Factory . . . This modern plant was built from the ground up for the manufacture of "Caterpillar" Diesel Engines exclusively. Machine shops are equipped with precision tools so that machinery tolerances are held to very exacting limits. To assure these standards, the parts undergo rigid inspections. On some jobs, tolerances are measured in microns (millionths of an inch) and on most jobs, limits are a few ten-thousandths.

Quality control requires good working conditions. This new plant is flooded with fluorescent light. Dust is eliminated from the air by efficient filtering systems. You, as an owner, realize the benefits of these facilities through the economy of your "Cat" Engines and their attachments. Quality manufacture pays off through quality performance.

ENGINE INSTA



SHORT BASE



EXTENDED BASE

Short Base

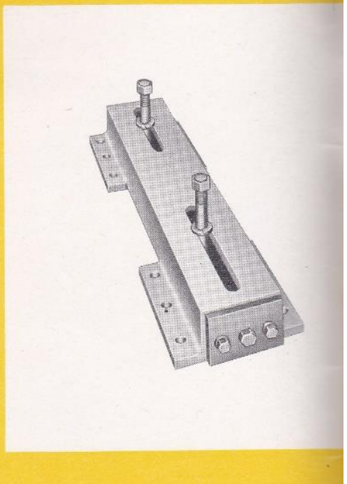
This base provides a rigid mounting for an engine with an enclosed clutch where the installation is of a portable or semi-portable nature. It is of strong, welded construction with heavy channel side pieces and I-beam cross members. Provision is made for mounting a fuel tank in the base, if desired. Convenient lift holes provide means for lifting or skidding the unit. This base provides a compact, convenient mounting for your power unit installation. The D397, D386, D375 and D364 have a combined base and oil reservoir built integrally with the engine.

- D17000 Ind.
- D337 Ind.
- D318 Ind.
- D13000 Ind.
- D326 Ind.
- D315 Ind.
- D8800 Ind.
- D311 Ind.

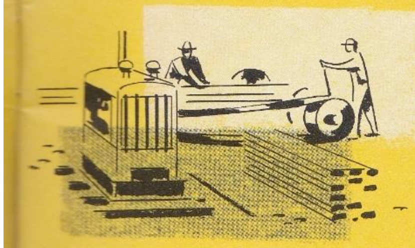
Extended Base

This type of base is required for a portable or semi-portable installation where heavy side loads or multiple pulley drives require the use of the extended shaft and pillow blocks. It is also often used for permanent installations of this type. The strong, welded channel and I-beam base provides ample support to keep pillow blocks, shaft and clutch in alignment under heavy side loads. Provision is made for a base-mounted fuel tank if this is desired. For the D397, D386, D375 and D364, an extended base is provided by welding extensions to the rear of the standard base. This provides support for the outer clutch bearing only. If an extended shaft and pillow block are required on these four engines, the pillow block is mounted separately from the engine base.

- D17000 Ind.
- D337 Ind.
- D318 Ind.
- D13000 Ind.
- D326 Ind.
- D315 Ind.
- D8800 Ind.
- D311 Ind.



LLATION



Electric Set Base

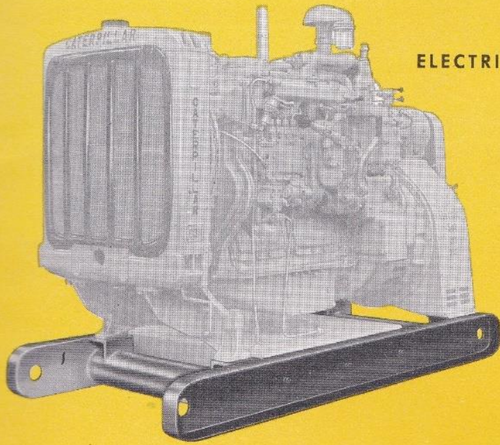
Most electric sets built by "Caterpillar" are designed with the generator close-coupled to the engine flywheel housing. These sets are supported by trunnion-type front supports and rear supports on the generator frame. However, if you wish to adapt your electric set for portable use, you will want the electric set base. This rugged, steel base has rounded-end skid-type side members which make moving easy. Hook or cable holes are conveniently located to make handling fast and simple. A base-mounted fuel tank can be installed.

D17000 E.S. D13000 E.S. D8800 E.S.
D337 E.S.
D318 E.S. D315 E.S. D311 E.S.

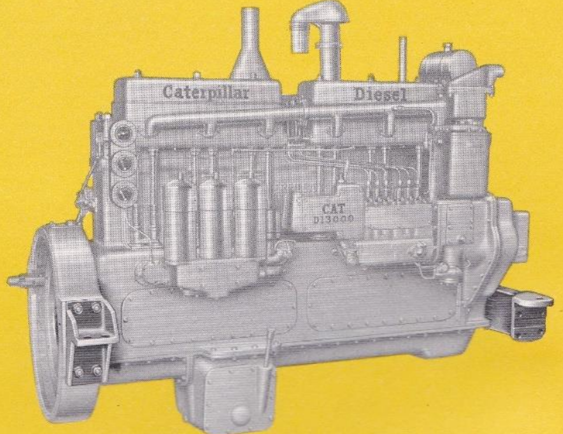
Tractor-Type Engine Supports

If your D13000 Engine is to be used in a piece of equipment such as a ditcher, you may want it equipped with tractor supports in order to fit the mountings already existing in that equipment. These rigid supports provide three-point mounting of the engine between beams or rails.

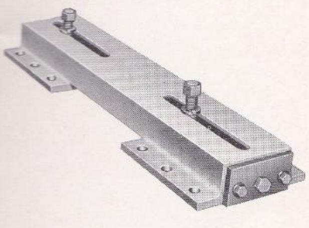
D13000 Ind.



ELECTRIC SET BASE



TRACTOR-TYPE ENGINE SUPPORTS



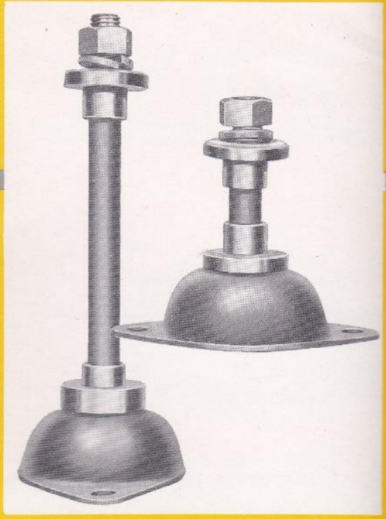
SLIDE RAILS

Slide Rails

"Caterpillar" slide rails offer a quick, simple method of adjusting belt tension and alignment on belt drives. These strong slide rails are bolted fixtures that permit lateral positioning of the engine by simple screw adjustments. The slide rails are bolted to the foundation and the engine is bolted to the rails, making installation easy.

Available for all "Caterpillar" Industrial Engines.

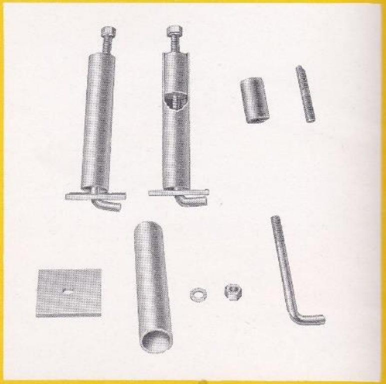
ENGINE INSTALLATION



Vibration Dampers

In some critical installations vibration may be objectionable. The effective "Caterpillar" vibration damper uses a small doughnut type rubber mounting under the engine supports to minimize the transmission of vibrations to surrounding structures.

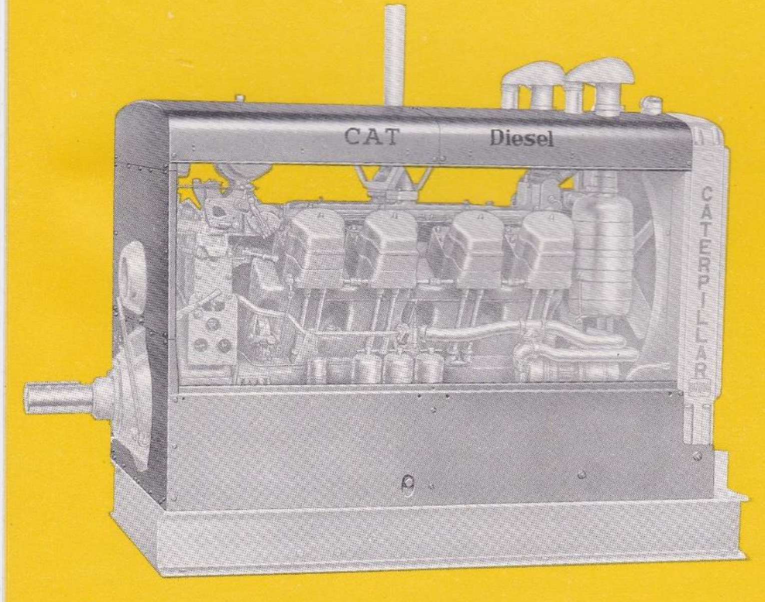
D17000 E.S.
D337 Ind.-E.S.
D318 E.S.
D13000 E.S.
D326 Ind.-E.S.
D315 E.S.
D8800 E.S.
D311 E.S.



Foundation Bolts

If your engine is to be placed on a concrete foundation, this group should be used to anchor the engine to the foundation. The foundation bolt group includes the bolts, nuts, washers, and other necessary hardware for rigidly anchoring your engine to a concrete foundation.

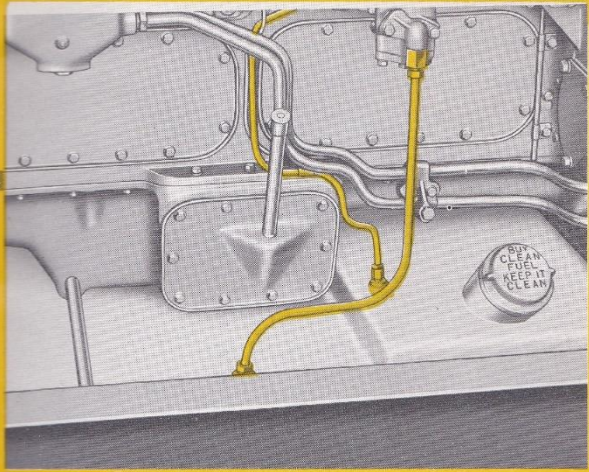
Available for all industrial engines and D397 E.S., D386 E.S., D375 E.S. and D364 E.S.



Hood and Dash

When your engine is to be working out of doors, a good protection for it is offered with a hood and dash. This attachment protects your engine from rain, dust, and other elements and improves the appearance of the power unit. The radiator arrangement is required.

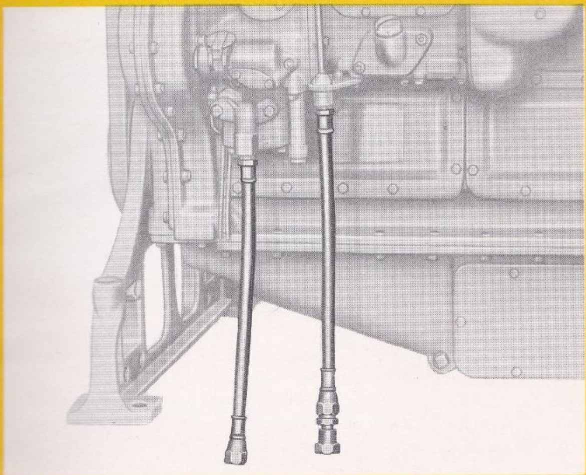
D17000 Ind.
D337 Ind.
D318 Ind.
D13000 Ind.
D326 Ind.
D315 Ind.
D8800 Ind.
D311 Ind.

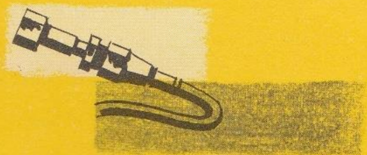


Fuel Tank

The fuel tank is fabricated of corrosion-resistant, copper-bearing steel and is mounted between the steel channels of either the short or the extended base. The tank has a fuel capacity for 10 hours operation and is particularly convenient for portable installation.

D17000 Ind.-E.S. D13000 Ind.-E.S. D8800 Ind.-E.S.
D337 Ind.-E.S. D326 Ind.-E.S.
D318 Ind.-E.S. D315 Ind.-E.S. D311 Ind.-E.S.

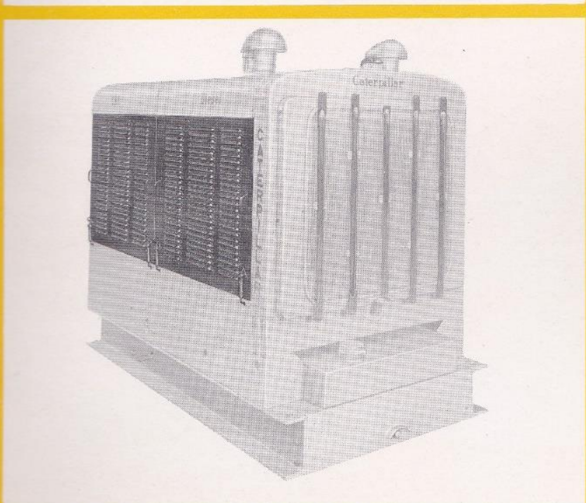


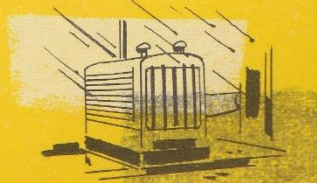


Flexible Fuel Lines

If your engine and fuel tank are not to be installed on a common base, provisions should be made for some degree of flexibility in the inlet and return fuel lines. These flexible lines are of a special oil resistant, synthetic rubber composition, each 16 inches long with a ⅜ inch standard pipe fitting for ease in connection. They are standard equipment on all electric sets and on all arrangements of the D397, D386, D375 and D364. Flexible connections are also available for water and oil lines.

D17000 Ind.-Mar. D13000 Ind.-Mar. D8800 Ind.-Mar.
D337 Ind.-Mar. D326 Ind.-Mar.
D318 Ind.-Mar. D315 Ind.-Mar. D311 Ind.-Mar.



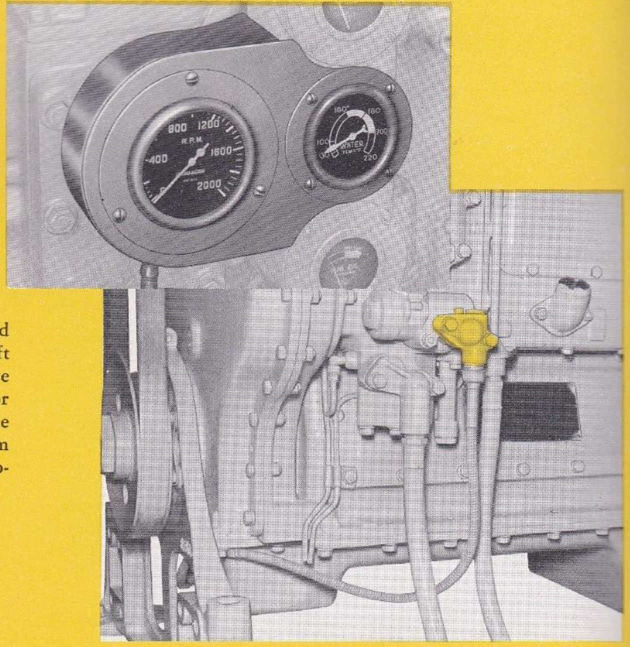


Hood Doors

When it is desirable to completely enclose your engine from the elements, hood doors should be used with your hood and dash arrangment. In cold weather, these sturdy doors help to maintain correct operating temperatures which result in greater fuel economy and longer life for your engine.

D17000 Ind. D13000 Ind. D8800 Ind.
D337 Ind. D326 Ind.
D318 Ind. D315 Ind. D311 Ind.

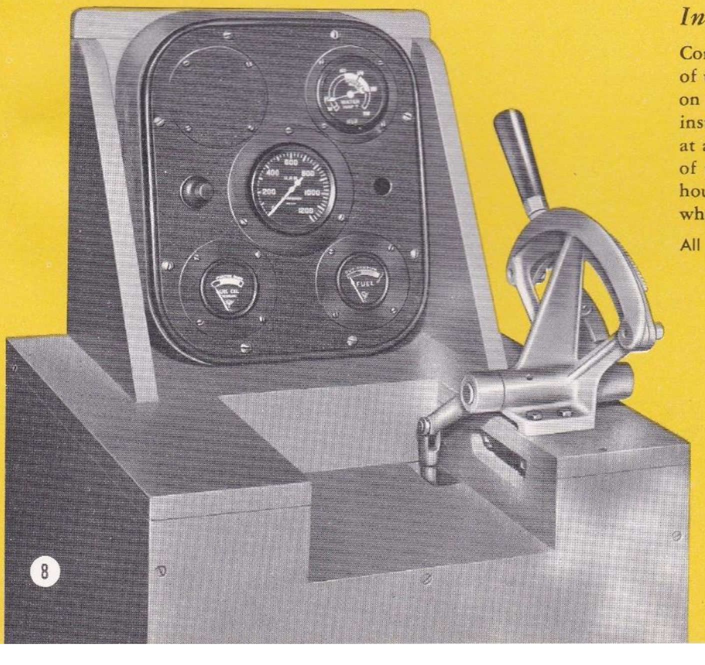
ENGINE INSTALLATION



Tachometer and Tachometer Drive

The tachometer group provides an engine mounted tachometer which continuously indicates crankshaft R.P.M. It includes a tachometer drive, flexible drive cable, speed indicating instrument, and a panel for mounting the instrument near the other gauges. The tachometer drive may be obtained independently from the tachometer group when some special type of tachometer or other device is to be driven.

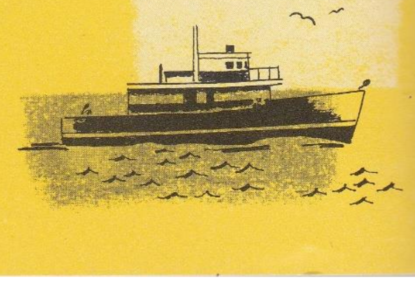
All industrial, marine, and electric sets.

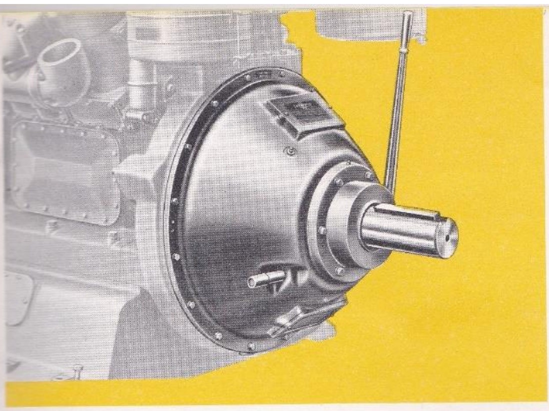


Instrument Panel

Convenient location for engine instruments is a feature of these instrument panels. The panel can be mounted on the front of the engine or, with the pilot house instrument panel arrangement, the panel can be located at a distance from the engine since 25-foot extensions of the instrument tubings are supplied with the pilot house arrangement. The instruments will be installed when the panel is ordered with the engine.

All marine engines.





POWER UTILIZATION

Enclosed Clutch

The enclosed clutch group is a complete power take-off including control lever, shaft and shaft key. It has ample capacity to transmit the full power of the engine and is suitable for chain, vee or flat belt drives or for straight torque drive through a commercial flexible coupling. Side loads of belt or chain drives must be within manufacturers' limits. The clutch is completely enclosed to prevent entrance of dust, but is easily accessible for adjustment through a removable cover. Clutch facings are of high quality friction materials and will give long and satisfactory service.

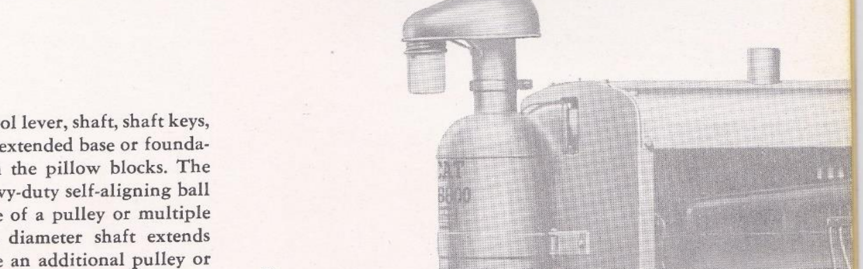
All industrial engines.

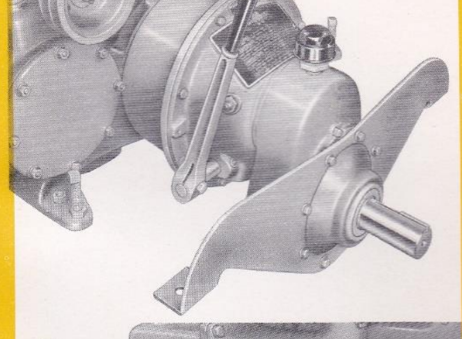
Open Clutch

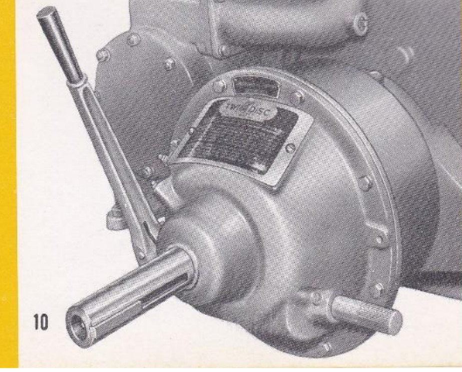
The open clutch is complete with control lever, shaft, shaft keys, pillow blocks and flywheel guard. An extended base or foundation is required to support and align the pillow blocks. The pillow blocks support the shaft in heavy-duty self-aligning ball bearings and are spaced to permit use of a pulley or multiple pulleys of required width. A small diameter shaft extends beyond the rear pillow block to drive an additional pulley or coupling. This shaft extension is designed to carry no more than 50% of the engine horsepower. The open clutch is driven from the flywheel through flexible rubber-fabric links. Clutch facings are made of high quality, long wearing material. Sheet metal guards enclose the clutch mechanism for operator safety.

If an extended shaft and pillow block are required for the D397, D386, D375 and D364, the pillow block must be mounted separately from the engine base and is used with the enclosed clutch.

D17000 Ind.
D13000 Ind.
D8800 Ind.
D318 Ind.
D315 Ind.
D311 Ind.







POWER UT

Flexible Coupling

If you wish to drive a load shaft directly from your engine flywheel, the flexible coupling will allow for a certain amount of unavoidable misalignment, although it is not torsionally flexible. The coupling consists of a plate driven from the flywheel through rubberized fabric links. The coupling plate hub may be bored (within the limits shown in the table below) to fit the diameter of the driven shaft. For "Cat" Engines not listed below, other types of commercial flexible couplings are available.

	D17000	D13000	D8800	D318	D315	D311
Max. Bore	4.000	4.000	3.875	3.500	3.000	2.625
Min. Bore	3.000	2.375	2.250	2.000	1.500	1.500

D17000 Ind.
D13000 Ind.
D8800 Ind.
D318 Ind.
D315 Ind.
D311 Ind.

Auxiliary Drive

The auxiliary drive is used for driving such equipment as water pumps, air compressors, and charging generators. This attachment is driven through the timing gear train from the crankshaft. The attachments that are used with these auxiliary drives are driven by either belt or gear, depending upon the installation. Horsepower available from each drive is given after each engine model.

D397 Ind.-Mar.-E.S.-10 H.P.
D386 Ind.-Mar.-E.S.-10 H.P.
D375 Ind.-Mar.-E.S.-10 H.P.
D364 Ind.-Mar.-E.S.-10 H.P.
D318 Mar.-5 H.P.
D315 Mar.-5 H.P.
D311 Mar.-5 H.P.

Power Take-off

The front power take-off provides two sources for taking power from the front end of the engine. A single groove vee-belt pulley, attached directly to the engine crankshaft and located inside the clutch, provides an auxiliary drive which is independent of the power take-off clutch. (For the D13000 Ind., a clutch is not included.) The principal source of power from the front power take-off is an enclosed clutch which can be supplied to operate at engine R.P.M. or at some speed less than engine R.P.M. This front power take-off with gear reduction can be supplied to operate either in the same direction as the crankshaft or in the opposite direction. It can be used with a belt and pulley, or if desired, for direct connection with driven equipment, through a flexible coupling. Power take-off power ratings are given for each engine.

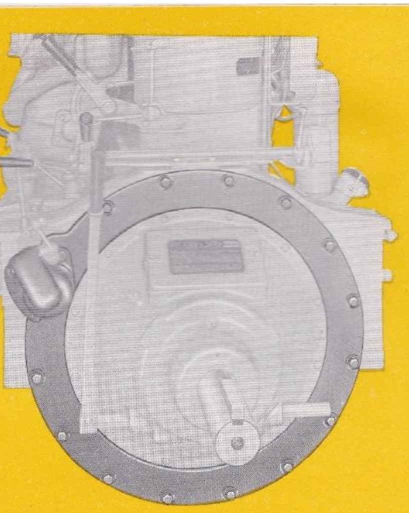
D397 Mar.-100 H.P.
D386 Mar.-100 H.P.
D375 Mar.-100 H.P.
D364 Mar.-100 H.P.
D17000 Mar.-25 H.P.
D13000 Mar.-25 H.P.
D8800 Mar.-25 H.P.
D337 Mar.-40 H.P.
D326 Mar.-40 H.P.
D318 Mar.-40 H.P.
D315 Mar.-26 H.P.
D311 Mar.-10 H.P.
D13000 Ind. (for use with radiator)-25 H.P.

ILIZATION

Flywheel Housing Adapter

To provide a smaller S.A.E. flywheel housing bolt circle, the flywheel housing adapter is used. This group includes a starter pinion mechanism cover and provides for mounting almost any power take-off. These adapters provide for an S.A.E. No. 1 bolt circle on the D8800, S.A.E. No. 2 bolt circle on the D315 and D318, and an S.A.E. No. 3 bolt circle on the D311, D315 and D318 Engines.

D8800 Ind. D318 Ind. D315 Ind. D311 Ind.



Stub Shaft

The stub shaft is a short, sturdy shaft that bolts to the engine flywheel and is used to transmit torque only. The torque is generally transmitted through a commercial flexible coupling, keyed to each shaft. A flywheel guard should be used with this attachment. When it is possible to use the flexible coupling (see opposite page) and connect directly to the flywheel, a more compact installation will result with fewer alignment problems.

D17000 Ind. D13000 Ind.
D337 Ind. D326 Ind.
D318 Ind. D315 Ind. D311 Ind.

Crankshaft Pulley

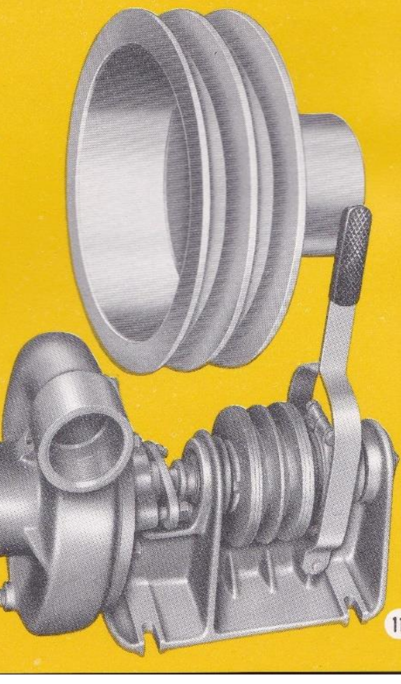
An additional means of auxiliary power take-off is the crankshaft pulley. This attachment fastens directly to the crankshaft at the front of the engine. It provides a vee-belt drive for water pumps, air compressors, generators and other auxiliary equipment. Maximum side pull is given for each engine.

D17000 Mar.-534 lb. D8800 Mar.-476 lb.

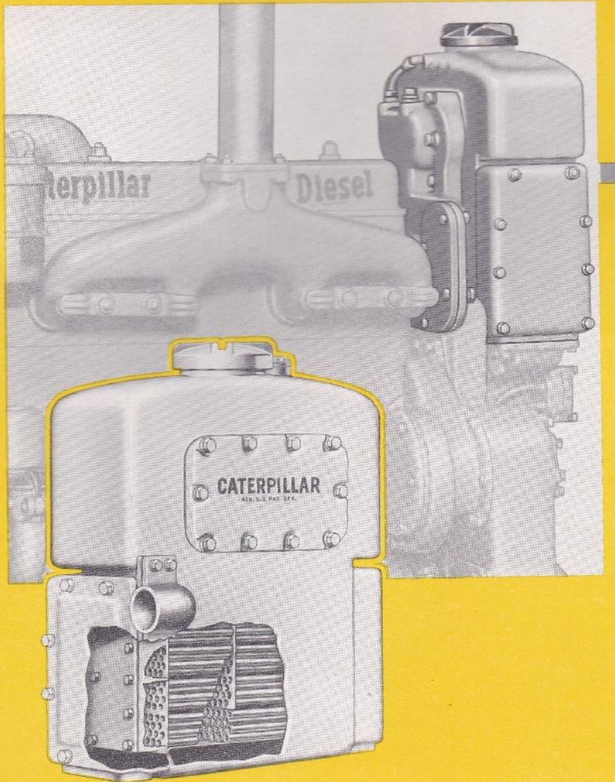
Bilge and Deck Washing Pump

The bilge or deck washing pump is of the centrifugal type and is constructed of non-corrosive material. It is equipped with a durable disc type clutch at the pump and is driven by a vee-belt from the crankshaft pulley or from a power take-off. This arrangement includes the driving pulley. The capacity of this pump is approximately 60 gallons per minute with a 25-foot head.

All marine engines.



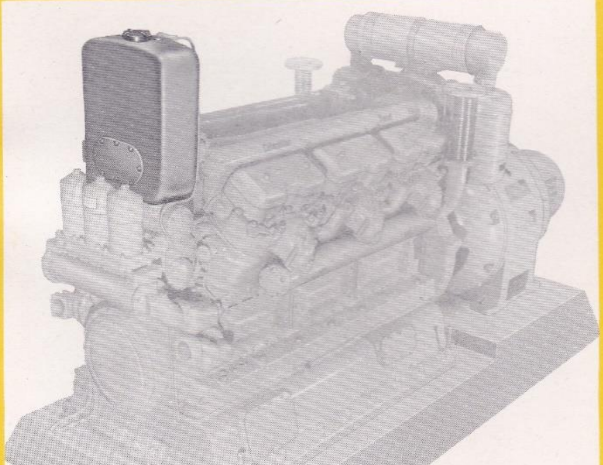
COOLING SYSTEM



Heat Exchanger

On an engine installation where an adequate supply of raw water is available, a heat exchanger is a very desirable method for cooling your engine. Heat exchanger cooling is not affected by ambient temperatures, air circulation, or contaminated air. Since a radiator fan is not required, there is a saving in horsepower. The heat exchanger consists of a number of tubes enclosed in a housing. Raw water flows within the tubes while the jacket water flows on the outside, thereby being cooled. The raw water is either run to waste or to a cooling tower or spray pond. The heat exchanger can be used with either the dry or the water cooled exhaust manifold. A water cooled oil cooler is included with the heat exchanger, and an auxiliary water pump is usually required. As a rule, the flow ratio of raw water to jacket water should be between 1:1 and 2:1 and the raw water temperature must not be over 90° F. Standard equipment on D17000, D13000, D8800, D318, D315 and D311 Marine Engines.

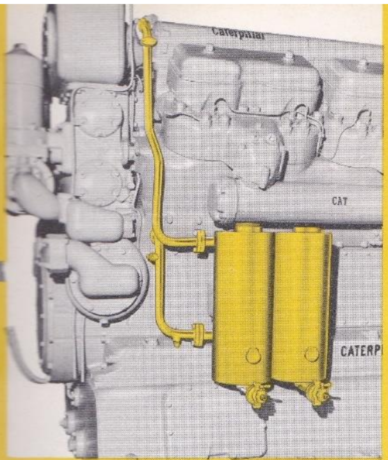
All industrial and electric sets, and
D397 Mar. D386 Mar. D375 Mar. D364 Mar.



Expansion Tank

When the quantity of water in your cooling system is large, as when a cooling tower is used with jacket water cooling coils in the tower, the large capacity expansion tank is required to allow for the expansion of the greater volume of jacket water. This expansion tank is also used for marine engines when keel cooling is employed. The D397, D386, D375 and D364 Industrial and Marine Engines are equipped with an expansion tank as standard equipment, and the large capacity expansion tank is offered as an attachment. The large capacity expansion tank is necessary for the D397 and D386 Engines when the external jacket water cooling system contains more than 20 gallons and not more than 120 gallons. It must be used on the D375 and D364 when the external jacket water cooling system contains more than 35 gallons and less than 135 gallons.

D397 Ind.-Mar. D386 Ind.-Mar. D375 Ind.-Mar.
D364 Ind.-Mar. D8800 Mar.
D318 Mar. D315 Mar. D311 Mar.



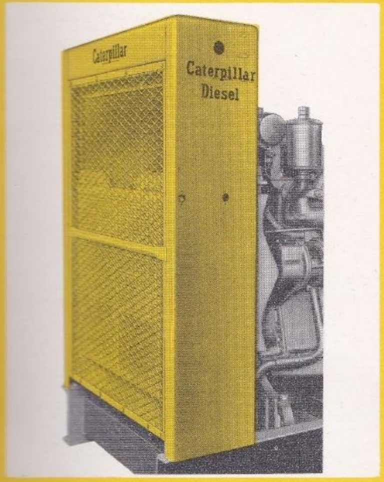
Gas-Fired Water Heater

The gas-fired jacket water heater maintains the temperature of your engine at 90° F. when the air temperature is 0° F. or above. Low, freezing temperatures cannot disrupt your work schedule with starting difficulties if you have one of these valuable attachments. If your engine has been idle for some time, these heaters quickly bring the temperature up to 90° F., making starting easier. The heater is connected in the jacket water circuit and thus heats the jacket water which in turn warms the entire engine.

D397 Ind.-E.S.	D386 Ind.-E.S.	D375 Ind.-E.S.	D364 Ind.-E.S.

Radiator

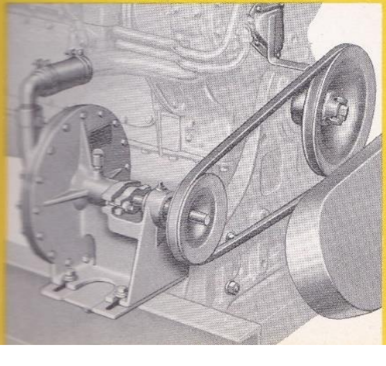
Where ambient temperatures do not exceed 110° F. and where flow of clean air to and from the radiator is unrestricted, particularly outdoor installations, a standard radiator is a satisfactory cooling method. When used with base and base mounted fuel tank, it makes a compact self-contained power unit which is very desirable for portable jobs. The water-cooled manifold cannot be used with the standard radiator (except on the D397, D386, D375 and D364) since the excess heat added to the jacket water exceeds the radiator cooling capacity.



When ambient temperatures do exceed 110° F. but do not exceed 130° F., a large capacity radiator should be used. The hood and dash group cannot be used with this large capacity radiator, but water-cooled manifolds can be.

All radiator groups include fan and air-cooled oil coolers. The fans are either the blower type or suction type. In some installations, such as excavators, a blower type fan is used in the summer to discharge the warm air outside the cab. In the winter, a suction type fan is used to keep the cab at a comfortable operating temperature.

Standard radiator available for all industrial and electric sets. Large capacity radiator available for D397 Ind.-E.S., D386 Ind.-E.S., D375 Ind.-E.S., D364 Ind., D17000 Ind.-E.S., D13000 Ind.-E.S., D8800 Ind.-E.S.



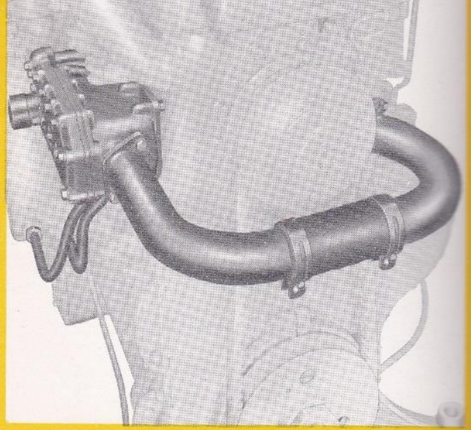
Auxiliary Pump

If the available raw water is not under pressure for circulation through the heat exchanger or cooling tower, an auxiliary water pump must be used. This attachment is mounted near the front of the engine and is either belt or gear driven. It is of the centrifugal type and cannot be used with an engine mounted radiator. This sturdy, high capacity pump has sufficient head to fill all normal requirements.

Available for all industrial and electric set engines.

COOLING SYSTEM

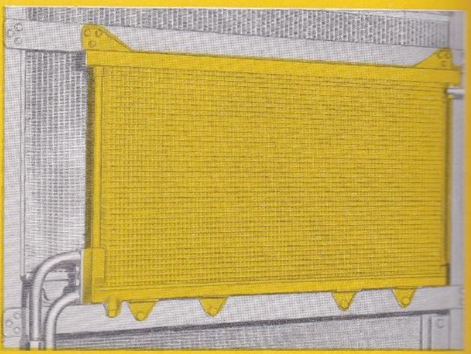
Lubricating Oil Cooling



Oil Cooler for use with Jacket Water

In some cooling arrangements the oil cooler must use jacket water as the cooling medium. This arrangement includes the oil cooler with oil and water lines and the mounting for the oil cooler. A surge tank and an oversized cooling system to maintain the lube oil temperature between 150 and 160° F. should be used with this attachment.

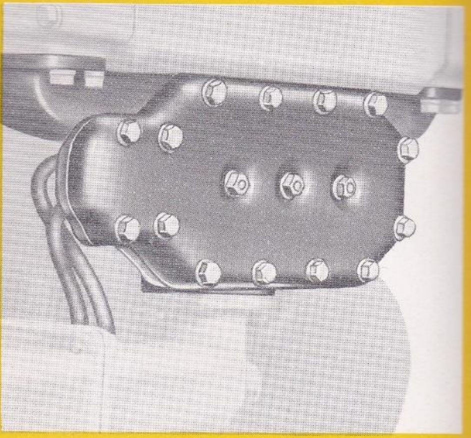
D17000 Ind.-E.S.	D13000 Ind.-E.S.	D8800 Ind.-E.S.
D337 E.S.	D326 Ind.-E.S.	
D318 E.S.	D315 E.S.	D311 E.S.



Fan and Air-Cooled Oil Cooler

When engines are used for replacement, a radiator of sufficient capacity is sometimes available. This fan and air-cooled oil cooler is for use with radiators other than those supplied by "Caterpillar". The oil cooler must be mounted on the radiator in such a manner as to receive cool air before the radiator. Radiators need not be mounted on the engine, and the fan can be driven by the engine or by an electric motor.

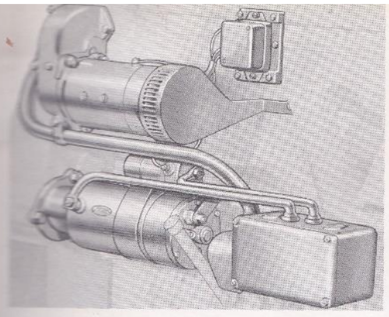
D17000 Ind.-E.S.	D13000 Ind.-E.S.	D8800 Ind.-E.S.
D337 Ind.	D326 Ind.	
D318 Ind.-E.S.	D315 Ind.-E.S.	D311 Ind.-E.S.

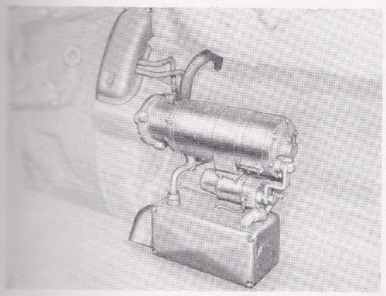


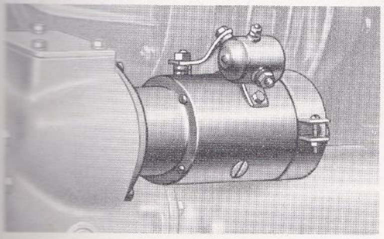
Water-Cooled Oil Cooler

The water-cooled oil cooler is mounted on the engine and provides excellent lubricating oil cooling when adequate raw water is circulated. The oil lines are part of this group, and provision is made for connecting water lines by means of flexible connections.

D17000 Ind.-E.S.	D13000 Ind.-E.S.	D8800 Ind.-E.S.
D337 Ind.-E.S.	D326 Ind.	
D318 Ind.-E.S.	D315 Ind.-E.S.	D311 Ind.-E.S.







STARTING SYSTEMS

Electric Starting

Two types of electric starting systems are available for "Cat" Diesel Engines—direct electric starting for the Diesel or electric starting for the starting engine. Direct electric starting systems are 24 or 32-volt while the starting arrangements for the starting engine are 6 or 12-volt. The starting engine assures all-weather, positive starting and with the simple 6 or 12-volt electric starter offers added convenience at low cost. The starting engine can be started manually in the event of failure of the electric system.

Direct electric starting is often desired in installations where speed of starting or convenience is important. Where the temperature drops below 50° F., the ether starting aid (page 17) is required. Direct electric starting system voltages are: 32 volts on the D397, D386, D375, D364, D17000, D13000 and D8800 Engines and 24 volts for the D337, D318, D315 and D311 Engines. Generators and battery sets are not a part of this attachment, but are available as attachments. Glow plugs, attachments for greater starting convenience, are standard with the direct electric starting attachment on all engines except the D17000, D13000, D8800 Engines and the D318 and D315 Marine Engines.

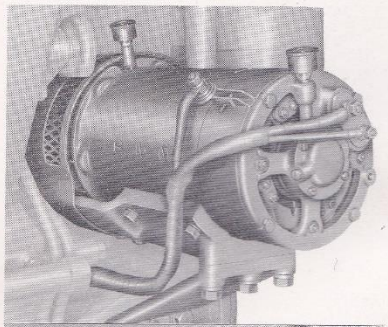
On engines equipped with gasoline starting engines, you will find the electric starting motor provides an easier and quicker method of cranking your gasoline starting engine. This method eliminates cranking by hand although manual starting is still possible if the battery fails. Either 6-volt or 12-volt systems are available. Charging generator and batteries are not included with the electric starting system.

All industrial, electric set and marine engines.

Charging Generator

The generators offered as attachments by "Caterpillar" are of ample capacity to keep your battery or batteries well charged. This attachment includes the voltage regulator. The generators are either 6, 12, 24 or 32-volt rating to match the starting system used.

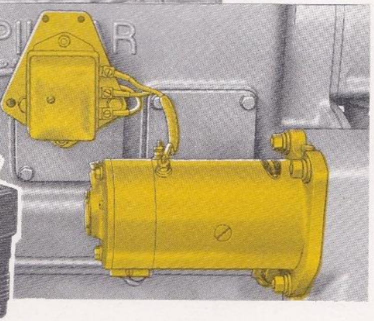
Available for all "Caterpillar" Engines.

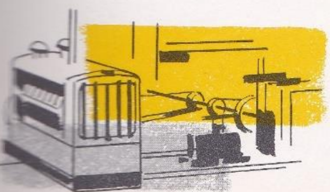


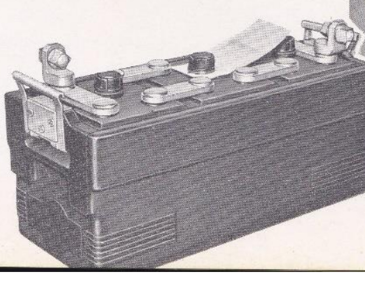
Batteries

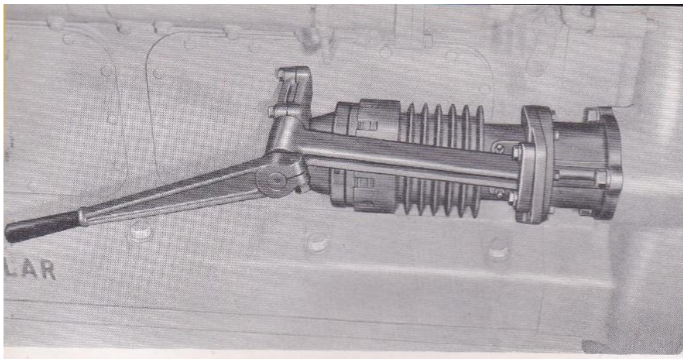
Battery sets of sufficient capacity are available for direct electric starting and for electric starting of the gasoline starting engine. Care must be taken to choose battery set and charging generator of the same voltage rating as the units they supply. The batteries are either 6, 12, 24, or 32-volt capacity and are shipped unfilled.

Available for all engines.

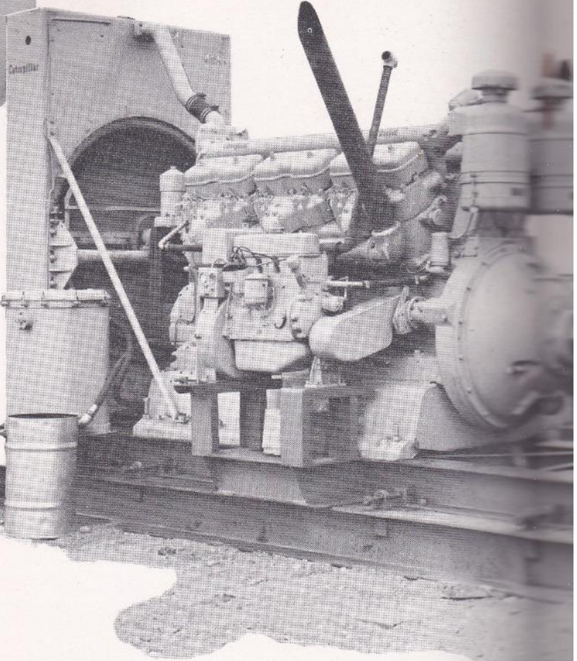








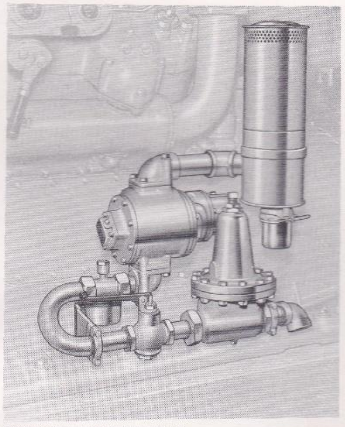
STARTING



Belt Starter Pinion Drive

The belt starter pinion drive for use with the D397, D386, D375 and D364 Engines permits the use of an auxiliary gasoline starting engine to start the Diesel engine. A four cylinder gasoline engine is mounted beside the Diesel and drives the starting pinion through vee-belts. A clutch in the belt starter pinion drive makes engaging and disengaging of the starting engine easy. The drive can be ordered for mounting on either side of the engine and requires an auxiliary engine with a minimum of 30 H.P. and maximum of 40 H.P. The four cylinder gasoline engines can be purchased from your "Caterpillar" Dealer as an extra attachment.

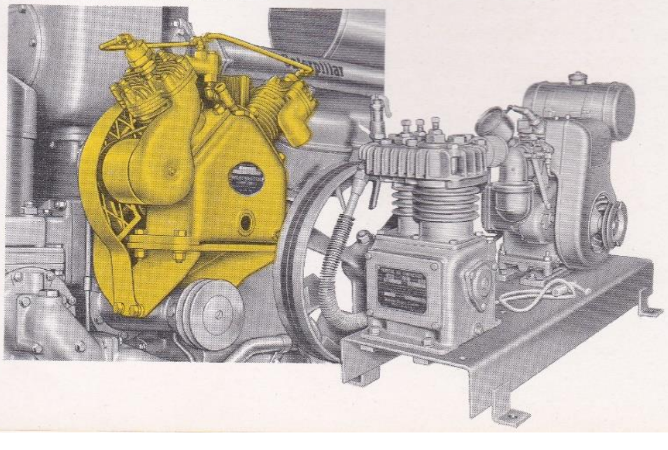
D397 Ind.-E.S.-Mar.
D386 Ind.-E.S.-Mar.
D375 Ind.-E.S.-Mar.
D364 Ind.-E.S.-Mar.



Air Starting

Compressed air starting systems are of particular value on engines in locations where there is already a supply of compressed air, and where the gasoline starting engine would be a fire hazard. The air motor is of the vane type and attaches directly to the flywheel housing at the starter opening. A Bendix drive is used to engage the Diesel flywheel. A silencer and a vapor arrester are offered as attachments for the air starting motor and if compressed air is not already available, compressors may be secured from your "Caterpillar" Dealer.

D397 Ind.-E.S.-Mar.
D375 Ind.-E.S.-Mar.
D17000 Ind.-E.S.-Mar.
D337 Ind.-E.S.-Mar.
D13000 Ind.-E.S.-Mar.
D318 Ind.
D386 Ind.-E.S.-Mar.
D364 Ind.-E.S.-Mar.
D8800 Ind.-E.S.-Mar.
D315 Ind.

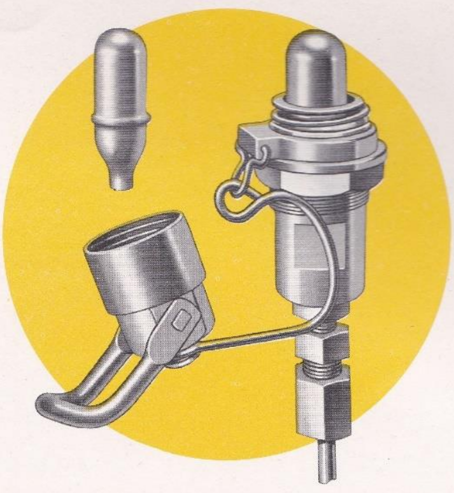


Compressors

To provide a source of compressed air for charging air receivers, several compressors are offered through your "Caterpillar" Dealer. One type compressor is driven by an air cooled gasoline engine. Another is driven either by a gasoline engine or an electric motor. A third type compressor is driven directly from the Diesel engine itself by the auxiliary drive.

D397 Ind.-E.S.-Mar.
D375 Ind.-E.S.-Mar.
D17000 Ind.-E.S.-Mar.
D8800 Ind.-E.S.-Mar.
D386 Ind.-E.S.-Mar.
D364 Ind.-E.S.-Mar.
D13000 Ind.-E.S.-Mar.
D337 Ind.-E.S.-Mar.

SYSTEMS

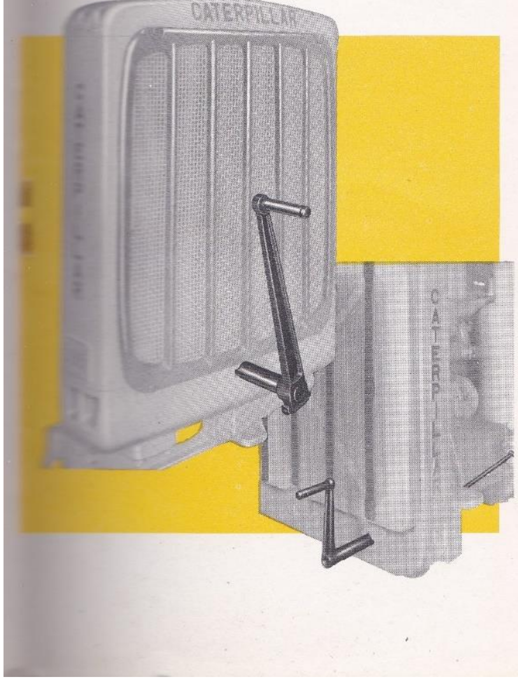


Ether Starting Aid

The ether starting aid is designed to assist cold-weather starting of your Diesel engine, particularly when equipped with electric starting. Although starting aids are not a necessity for cold-weather starting of "Cat" Diesel Engines equipped with gasoline starting engines, they do provide quicker starts in extremely cold weather and are offered for your convenience.

The ether starting aid is located near the throttle and is coupled to the air intake pipe by means of tubing. In use, the ether capsule is inserted in the applicator and is discharged while the engine is being cranked. Standard on D397, D386, D375 and D364.

D17000 Ind.-E.S.-Mar. D13000 Ind.-E.S.-Mar. D8800 Ind.-E.S.-Mar.
D337 Ind.-E.S.-Mar. D326 Ind.-E.S.
D318 Ind.-E.S.-Mar. D315 Ind.-E.S.-Mar. D311 Ind.-E.S.-Mar.



CRANKS

Diesel Engine Crank

When performing service work on your engine, it may be necessary to turn the crankshaft by hand. The Diesel engine crank provides a convenient means for doing this. It cannot be used for starting. This attachment is a forged steel crank and is long enough to pass through the radiator to engage the crankshaft.

D17000 Ind.-E.S.-Mar. D13000 Ind.-E.S.-Mar. D8800 Ind.-E.S.-Mar.
D318 Ind.-E.S. D315 Ind.-E.S. D311 Ind.-E.S.

Starting Engine Crank

An optional crank for the D13000 starting engine provides for starting this engine from the front. This attachment is used when you have limited accessibility and is available for the D13000 industrial and electric set engines only.

SAFETY AND

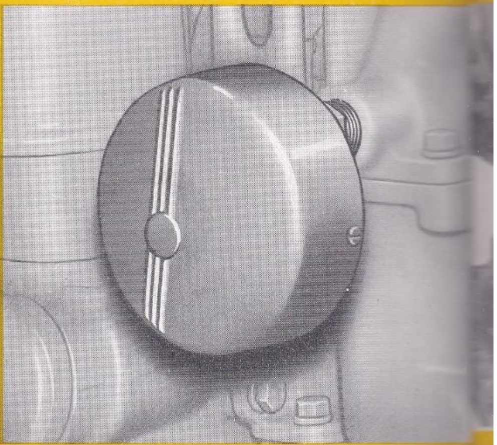
Safety Arrangements

High Water Temperature Safety Alarm Switch

The high water temperature safety alarm switch is used to give a visible or audible warning in event of excessively high water temperature. This switch closes a circuit that will energize any warning device chosen by the owner such as a bell, horn, or light and warns the operator before any damage is done to the engine. The safety alarm switch is thermostatically actuated and is fully automatic.

Alarm switches can be used separately or in combination with automatic shut-off devices, and if desired, switches that open the circuit, instead of closing it, can be supplied.

D397 Ind.-E.S.-Mar.
D375 Ind.-E.S.-Mar.
D17000 Ind.-E.S.-Mar.
D337 Ind.-E.S.-Mar.
D318 Ind.-E.S.-Mar.
D13000 Ind.-E.S.-Mar.
D326 Ind.-E.S.
D315 Ind.-E.S.-Mar.
D386 Ind.-E.S.-Mar.
D364 Ind.-E.S.-Mar.
D8800 Ind.-E.S.-Mar.
D311 Ind.-E.S.-Mar.



Low Oil Pressure Safety Alarm Switch

The low oil pressure safety alarm switch is used to give a visible or audible warning in event of low oil pressure. The switch closes a circuit that energizes a warning device furnished by the owner such as a bell, horn, or light, warning the operator of the low oil pressure before any damage can be done to the engine. This switch is pressure actuated. When the engine is stopped manually, as at the end of a day's work, the circuit of the switch is opened by pushing a button which at the same time resets the unit. This switch can be used in combination with the automatic shut-off if desired. Also switches that open the circuit, instead of closing it, can be supplied.

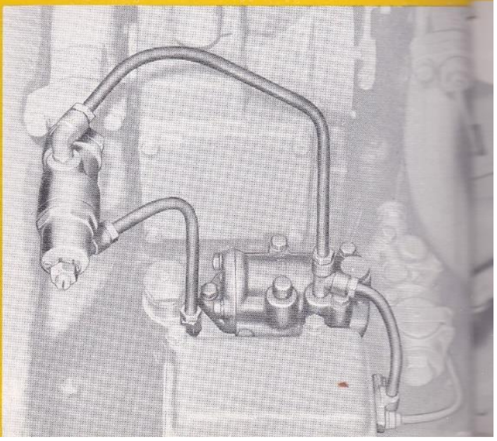
D397 Ind.-E.S.-Mar.
D375 Ind.-E.S.-Mar.
D17000 Ind.-E.S.-Mar.
D337 Ind.-E.S.-Mar.
D318 Ind.-E.S.-Mar.
D13000 Ind.-E.S.-Mar.
D326 Ind.-E.S.
D315 Ind.-E.S.-Mar.
D386 Ind.-E.S.-Mar.
D364 Ind.-E.S.-Mar.
D8800 Ind.-E.S.-Mar.
D311 Ind.-E.S.-Mar.

High Water Temperature and Low Oil Pressure Safety Shut-Offs

The automatic shut-off device serves as a constant watchman while the engine is in operation. It is constantly on the job, ready to shut the engine down if oil pressure gets low, or if water temperature gets too high, protecting your engine against costly repairs.

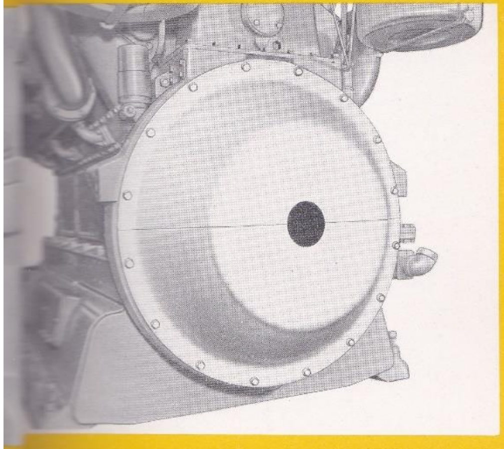
This attachment moves the fuel pump rack, shutting off fuel to the engine when the oil pressure is low. When the water temperature is too high, a thermostatically operated valve opens and allows the oil pressure in the safety shut-off device to drop, thus simulating a low oil pressure condition and stopping the engine. Low oil pressure shut-offs are standard on D397, D386, D375 and D364.

Available for all industrial and electric set arrangements.



PROTECTION

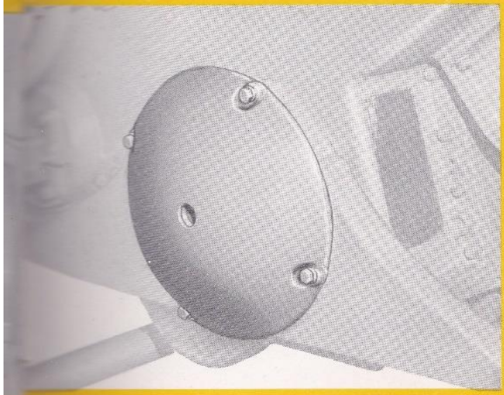
Guards



Flywheel Guard

When using a stub shaft or an open clutch a wise precaution for safety is to use a flywheel guard. This durable guard is made of heavy sheet metal and bolts to the flywheel housing. It protects fingers and hands and prevents tools or other objects from falling into the flywheel housing.

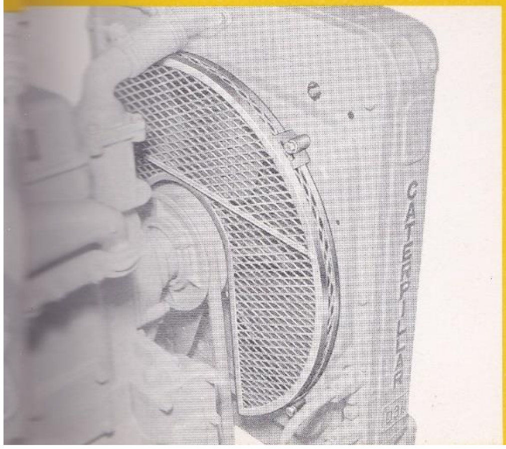
D17000 Ind.	D13000 Ind.	D8800 Ind.
D318 Ind.	D315 Ind.	D311 Ind.



Crankshaft Guard

This guard fastens to the front of the engine and covers the forward end of the crankshaft. The fast revolving crankshaft would be a safety hazard without this crankshaft guard, which is made of heavy sheet metal and bolts to the forward part of the engine.

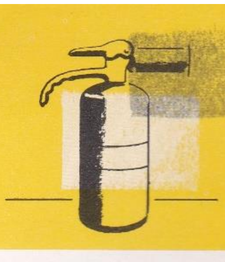
D17000 Ind.	D13000 Ind.	D8800 Ind.



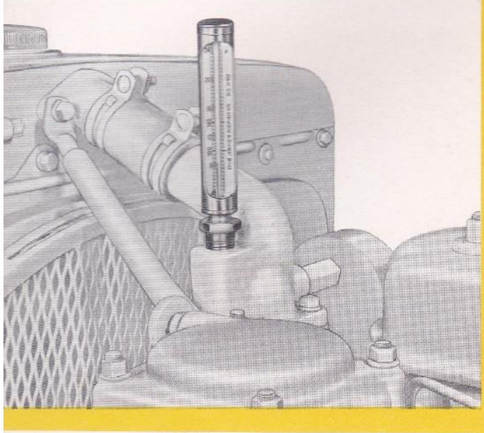
Radiator Fan Guard

The radiator fan guard is a heavy-duty expanded metal or coiled wire guard to prevent anything from contacting the fan. The open area between the metal is not large enough to allow the fingers to reach the fan, but air flow is not materially restricted. This attachment is especially important when using a blower type fan, which could draw clothing into the blade and endanger the operator.

The radiator fan guard is available for all standard radiators and is standard equipment with the blower fan arrangement.



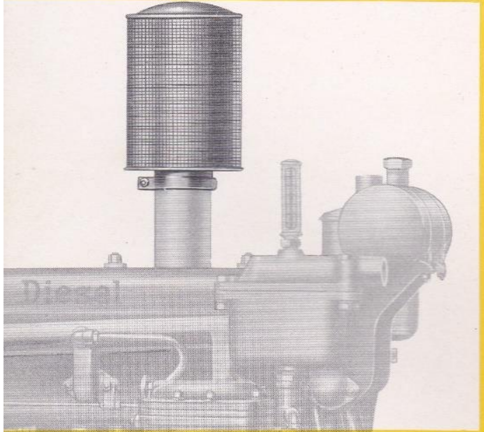
SAFETY AND PROTECTION



Thermometer

The standard heat indicator gauge gives sufficiently accurate indication of the jacket water temperature for most purposes, but a thermometer can be used when it is desirable to obtain a more accurate reading. Two different thermometers are available, one for use with and the other without the heat exchanger. Handy threaded holes are already in the jacket for inserting the thermometer.

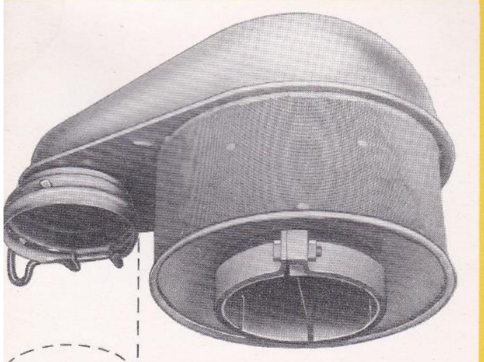
All industrial and electric sets and D326 Mar.



Precleaner

A special precleaner keeps air-borne lint out of cotton gin engine air cleaners. This fine lint would pass through the standard precleaner and soon clog the air cleaner screens. With the cotton gin precleaner the lint is collected on the fine mesh screen where it can be removed easily, allowing longer periods between air cleaner maintenance.

D386 Ind.
D17000 Ind.
D337 Ind.-E.S.
D318 Ind.
D364 Ind.
D13000 Ind.
D326 Ind.
D315 Ind.
D8800 Ind.
D311 Ind.

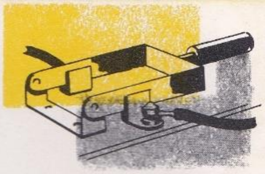


Prescreener

An extra precaution against lint, chaff, leaves, etc. entering the air cleaner is given by use of the "Caterpillar" prescreener. The prescreener consists of the standard precleaner combined with a length of fine wire mesh. The wire mesh stops larger particles, such as lint and chaff, relieving the precleaner and air cleaner of a considerable load and offering a visible reminder for the operator to service the prescreener, as well as the entire air cleaner.

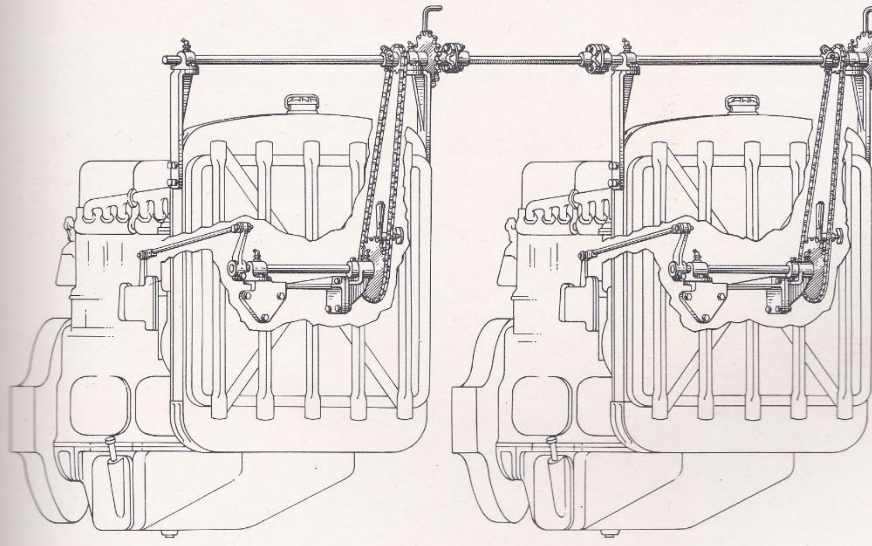
D397 Ind.
D17000 Ind.
D337 Ind.
D318 Ind.
D375 Ind.
D13000 Ind.
D326 Ind.
D315 Ind.
D8800 Ind.
D311 Ind.

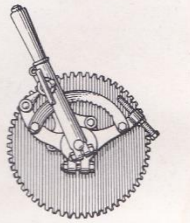
SPEED AND VOLTAGE CONTROL



Rheostat In Exciter Field

This attachment controls the alternating current output voltage. It is for back-of-board mounting and is supplied complete with hand wheel. It is available for all electric set installations except the D337.





Drill Rig Governor Control

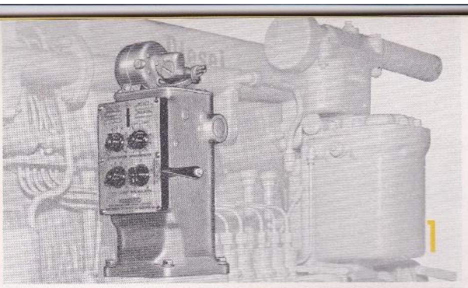
Drill rig governor controls provide centralized control of multiple engine installations on oil well drill rigs. Of the two types offered, the mechanical type, shown here, is for the smaller engines while the larger engines (D397, D386, D375, and D364) use the pneumatic control. These controls are used to synchronize and to maintain synchronization of engines driving the same rigs at the same time. The controls are such that the engines can be controlled remotely.

D17000 Ind.

D13000 Ind.

SPEED AND VOL

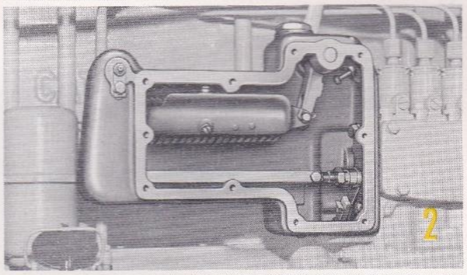
GOVERNORS


1

1 *Isochronous Governor*

Although the usual 3% regulation governor is satisfactory for most electric set applications, there are some electrical loads that include frequency sensitive equipment such as electric clocks. Since frequency is determined by engine speed, it is necessary on frequency-critical applications to provide an isochronous governor having 0% speed regulation (constant speed from no load to full load). Other governor controls are unnecessary. By using a governor-mounted electric motor, as illustrated, the speed can be controlled from a remote push button station. Standard on D397 E.S., D386 E.S., D375 E.S., D364 E.S.

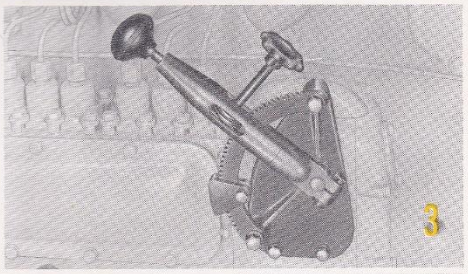
D397 Ind. D386 Ind. D375 Ind. D364 Ind.
D17000 Ind.-E.S. D13000 Ind.-E.S. D8800 Ind.-E.S.
D337 E.S.


2

2 *3% Regulation*

The standard industrial engine arrangement includes a 10% regulation governor. If your job requires closer speed regulation than 10%, a 3% regulation governor is available as an attachment. This governor will control your engine speed within a range of 3% of the desired speed.

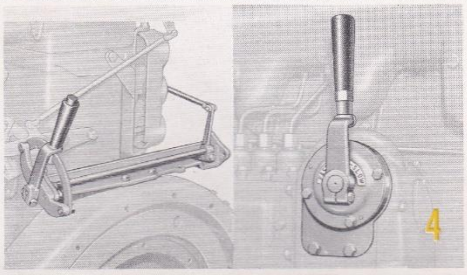
D17000 Ind.-E.S. D13000 Ind.-E.S. D8800 Ind.-E.S.
D337 Ind.-E.S. D326 Ind.-E.S.
D315 Ind.-E.S. D318 Ind.-E.S. D311 Ind.-E.S.


3

3 *Vernier Control*

The vernier governor control mounts in approximately the same manner as does the standard control. It differs from the standard control in that a small worm wheel, rather than a pawl, engages a ratchet segment. This permits a fine or vernier adjustment of engine speed or, by lifting the worm wheel clear of the ratchet teeth, a wide, quick adjustment when stopping or starting. The control is primarily for use with the 3% regulation governor.

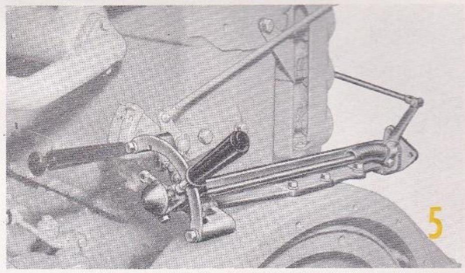
This attachment is available for all industrial engines.


4

4 *Engine Mounted Governor Control*

Two types of engine mounted governor controls are shown here. The D13000 and D8800 use the type control shown on the left. It locks by means of a spring-loaded pawl that engages teeth on the ratchet segment. The other picture shows the type used on the D318, D315, and D311 Engines. Locking is accomplished by cam acuated pawls engaging internal serrations in a circular ring.

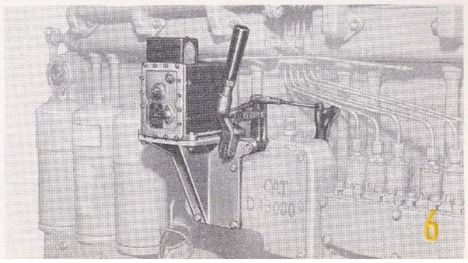
This type control is entirely manual and permits quick speed changes, as when shutting down the engine. The engine mounted governor control is standard on the D397, D386, D375 and D364 Engines and is an attachment for all others.


5

5 *Single Cable Remote Governor Control*

This attachment provides a point for attaching a cable for a remote control device. A pawl and ratchet segment mounted on the engine permit operation at that point. For governor control from a remote point, the pawl is locked out and the lever to which the cable is fastened is engaged. The engine, however, can not be shut down from the remote position.

D13000 Ind. D8800 Ind.
D318 Ind. D315 Ind. D311 Ind.


6

6 *Electric Remote Governor Control*

A small reversible 20 volt motor, geared to the governor lever through a high gear reduction, operates this attachment. The electric remote governor control is available complete with a 110/20 or 220/20 volt transformer. A manual control is provided for starting and stopping the engine. A double push-button switch may be mounted at a remote position and wired so that one button increases and the other decreases the engine speed. This type control finds use primarily near a synchronizing device and is used for synchronization of multiple engine installation.

D17000 Ind.-E.S. D13000 Ind.-E.S.
D318 Ind.-E.S. D315 Ind.-E.S. D311 Ind.-E.S.

TAGE CONTROL

CONTROLS

1 *Synchronizer*

When a self-regulated alternating current Diesel electric set is used in parallel with another, it is recommended that a synchronizing device be used to synchronize the incoming unit with the line. This attachment provides equipment mounted in a box for wall mounting for synchronizing by the dark lamp method. It is available in ratings up to 400 amperes at 50 or 60 cycles.

2 *Self-Regulated Generator Controls*

The self-regulated generator control is an enclosed cabinet wired for either single or multiple unit installations. It is used where a completely wired switchboard is preferred rather than separately mounted instruments. It handles 110 to 440 volts at 50 to 60 cycles, single or three phase. The basic equipment included consists of a voltmeter, ammeter and selector switch, synchronizing light and switch, and a thermal type circuit breaker.

3 *Externally Regulated Generator Controls*

The externally regulated generator control consists of a synchronizing light and switch, ammeter and selector switch, voltmeter, automatic voltage regulator with cross current compensation, exciter field rheostat, and a thermal type circuit breaker.

Externally Regulated (Without Circuit Breaker)

The externally regulated generator control without circuit breaker (not shown) is used where only the basic voltage control equipment is required in connection with a conventional circuit breaker or fused knife switch. It is intended primarily for single unit installations although it is suitable for parallel operation when used with a set of synchronizing lamps or synchroscope. The basic equipment includes an ammeter and selector switch, voltmeter, automatic voltage regulator with cross current compensation, and an exciter field rheostat. The circuit breaker or fused knife switch are not included with this attachment.

4 *Switchboard*

The externally regulated switchboard is wired for 2400 volts and may be used for either single or multiple unit installations. The switchboard consists of a steel panel, dead front, mounted on the floor with the back and sides open. The basic equipment includes a synchronizing light and switch, ammeter and selector switch, voltmeter, magnetic type oil circuit breaker, automatic voltage regulator with cross current compensation, and a drilled hole to mount the exciter field rheostat.

5 *Force Compensator*

This attachment is an over-center device that partially neutralizes the governor spring tension thereby reducing the effort required to adjust the governor control. It consists of a spring attached to an arm on the governor control lever and is fixed at the opposite end. It is generally used with the drill rig control or the single cable remote control on the D17000 or D13000 Industrial Engines.

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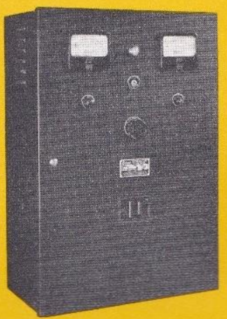

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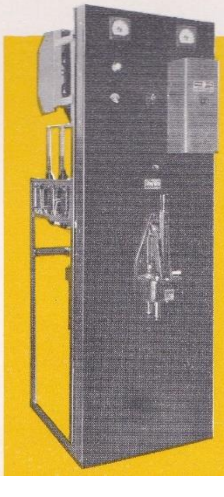

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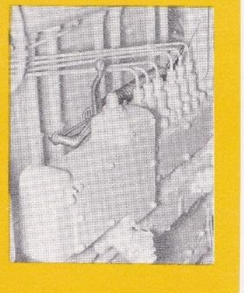
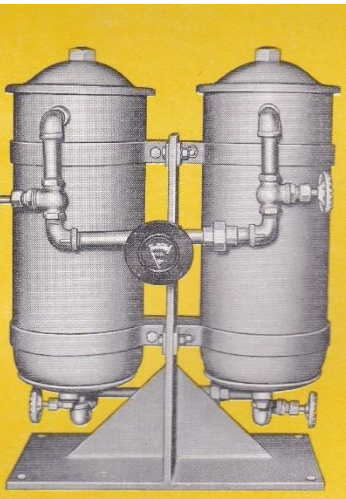


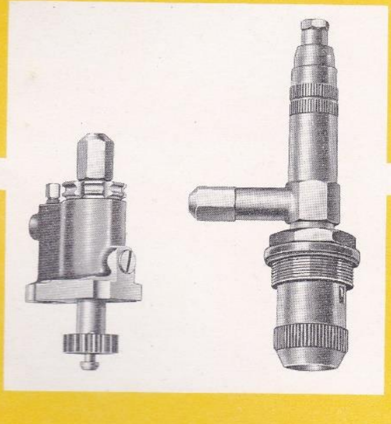
FUEL SYSTEMS

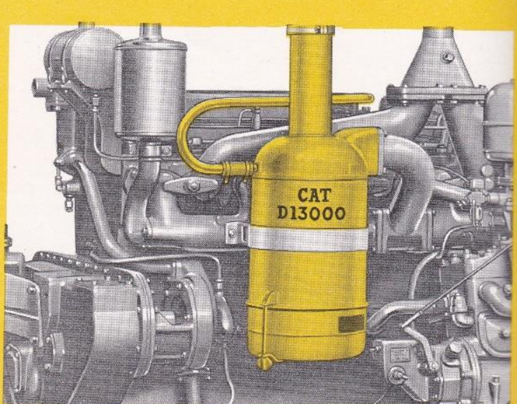


Crude Oil

"Caterpillar" Diesel Engines will burn a wide range of crude oils efficiently if equipped with a crude oil fuel system. This feature is often required in oilfield engines or for pipeline pumping. It can be ordered with or without the crude oil filters. It provides special injection pumps and valves of corrosion-resistant steel; a special fuel transfer pump and two adapters for routing the fuel from the transfer pumps to the crude oil filters and back to the standard engine. Fuel filters are also included with this group.

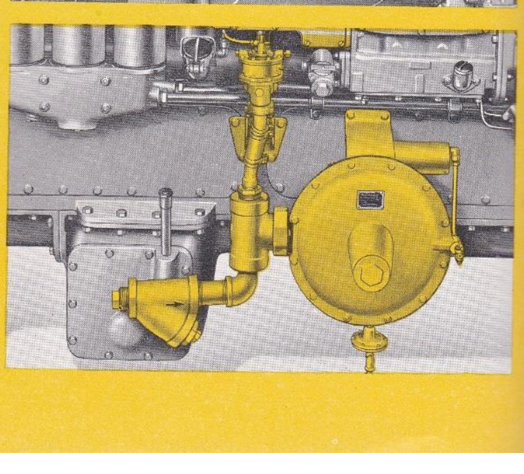
D17000 Ind.-E.S. D13000 Ind.-E.S. D8800 Ind.-E.S.

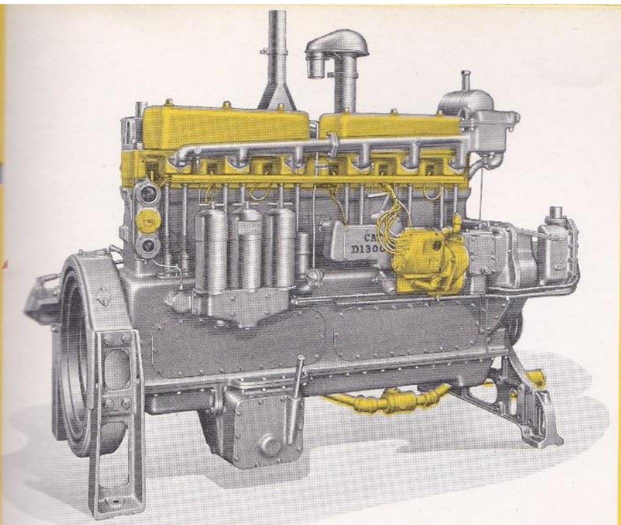


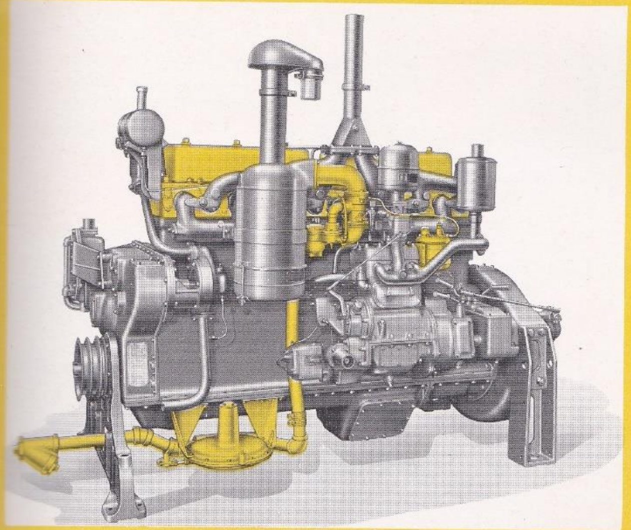


Dual Fuel

Where low-priced gas is often more desirable to use than Diesel fuel, your D13000 Engine can be equipped with the dual fuel attachment which consists of special fuel injection pumps, precombustion chambers, governor controls, lines and strainer, pressure regulators, gas governing valve, and piping on the engine. Installation of these parts permits Diesel cycle operation on dry natural gas, using a small amount of Diesel fuel for ignition. This engine can be operated on either Diesel fuel or natural gas merely by throwing a lever. A dual fuel arrangement is available for the D13000 Industrial and Electric Set Engines only.







Gas Conversion

Natural gas is a desirable, low-cost power fuel wherever it is in plentiful supply. To utilize a wide range of gas fuels, dry or wet, in the D13000 Engine, a spark ignition conversion arrangement is available which can be installed either at the factory or in the field. Performance of the D13000 Engine with natural gas conversion has been proved by thousands of working hours on all kinds of jobs. The D13000 supplies low cost, reliable power for oil well drilling, cotton gins, ice plants, and many other operations.

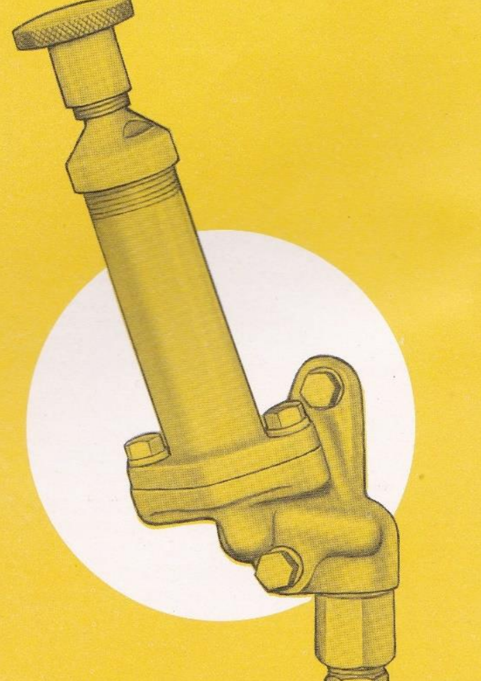
The change-over in the field is approximately a four hour job for the average mechanic. Special cylinder heads, magneto, spark plugs, wires, ignition switch, governor spring housing, carburetor, upper cylinder lubricator, gas pressure reducer, gas line filter, and mounting and connecting lines for all parts are included in this arrangement.

D13000 Ind.-E.S.

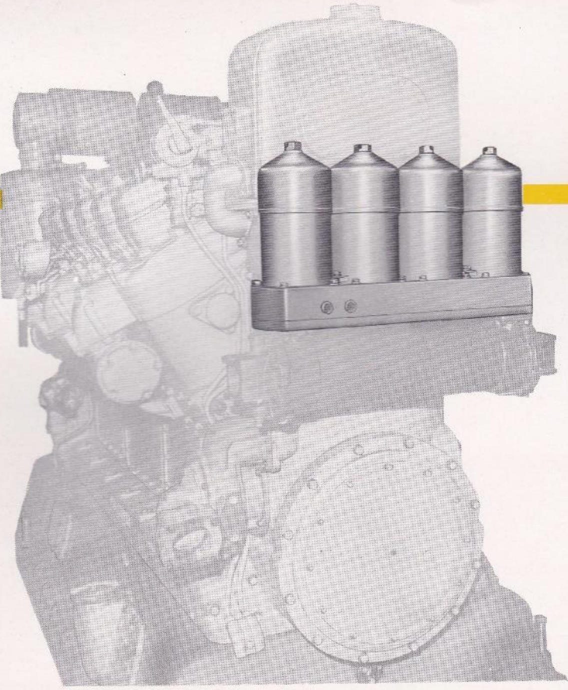
Fuel Priming Pump

When your installation is such that it is desirable to be able to prime the fuel system before starting, such as with an electric starting system, a fuel priming pump should be used. This pump is included when the Diesel engine electric starting system is ordered. It consists of a hand-operated plunger pump which lifts fuel and forces it into the engine fuel system, making it possible to bleed air from the fuel filter housing and lines before starting. Quicker starting results, especially after the engine has been idle for several days.

Available for all "Caterpillar" Engines.

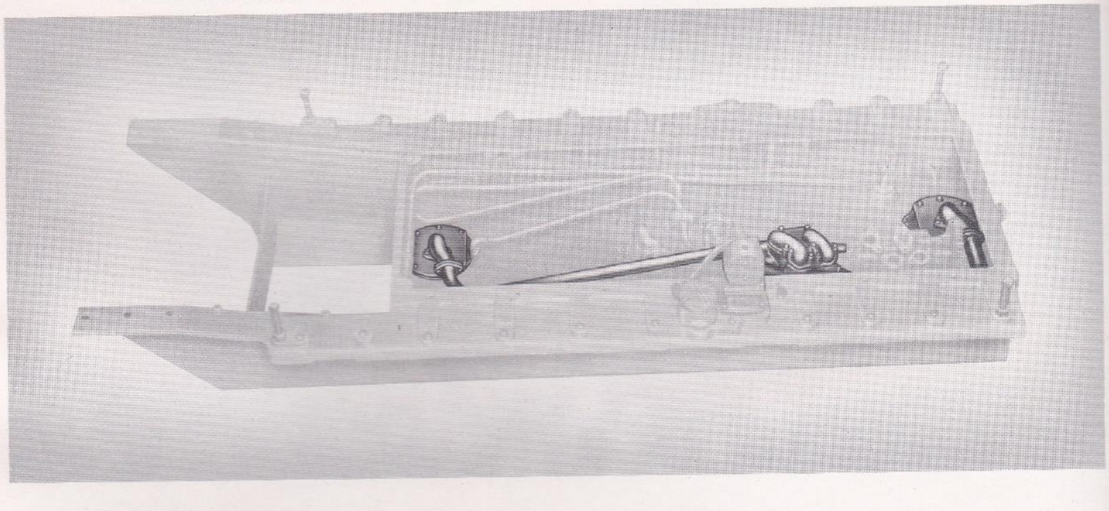


LUBE OIL SYSTEM



Small Capacity

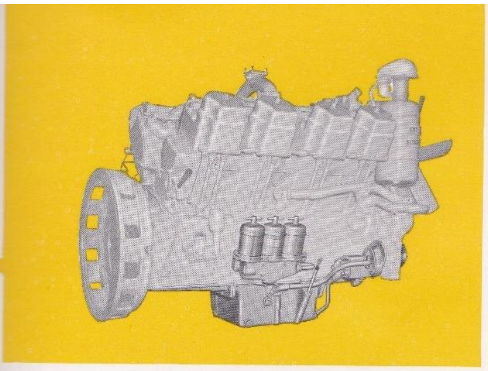
The small capacity lubricating oil system eliminates the separately mounted oil filter on the D397, D386, D375 and D364 Engines. The standard D397 and D386 have three engine-mounted oil filters each. The standard D375 and D364 have two engine-mounted oil filters each. When the small capacity lubricating oil system is used, an additional filter is added to these engine-mounted filters making 4 and 3 respectively. Oil capacity is 36 U.S. gallons for the D397 and D386, and 24 U.S. gallons for the D375 and D364. This small capacity system is an attachment for the D397, D386, D375 and D364 Industrial Engines and Electric Sets.



Oil Pump and Scavenge Lines

For yarders or any other such installation where it is possible that your engine at some time will be operating at an angle greater than 5°, the oil pump and scavenge lines group should be used. This group consists of an added oil pump with oil lines that lead to the ends of the crankcase. These scavenge lines pick up the oil from the front and rear of the engine and deliver the oil to the suction bell of the main pump where it continues its usual path through the engine. The scavenge pump is mounted directly behind the main pump and is connected to its drive shaft by a splined coupling. This group allows angles up to 17° for the D397, D386 and D375. The D364 can be angled up to 11°.

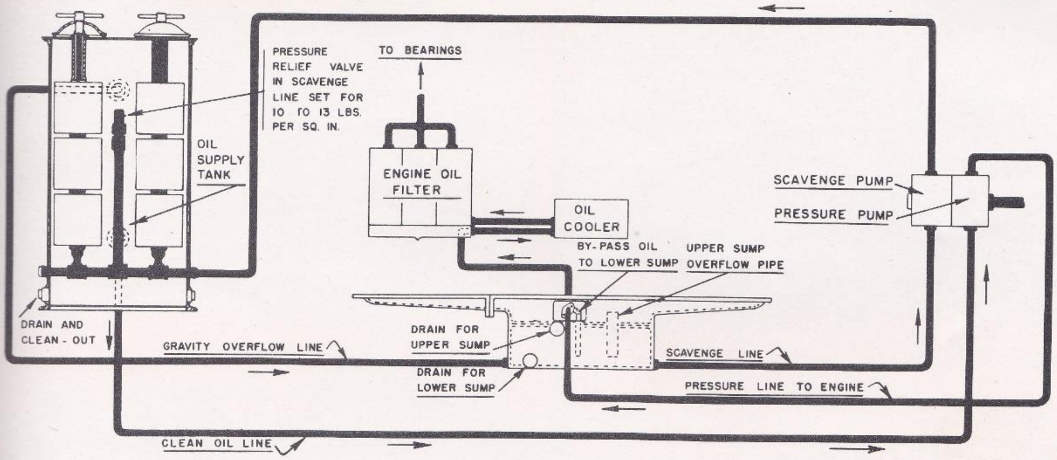
D397 Ind.	D386 Ind.	D375 Ind.	D364 Ind.



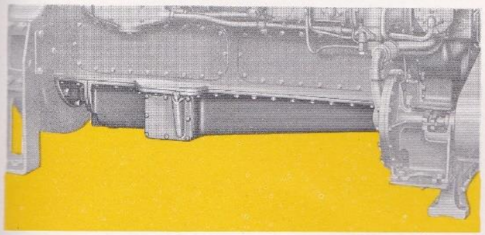
Triplex

The triplex lubricating oil system permits extended intervals of operation between oil changes. It consists of a large oil pan, an external reservoir for oil, large filter elements and necessary pumps for circulating this oil. With this arrangement, oil changes of 2000 hours are permissible. This attachment was designed for use with locomotive engines.

D17000 Ind.-E.S.



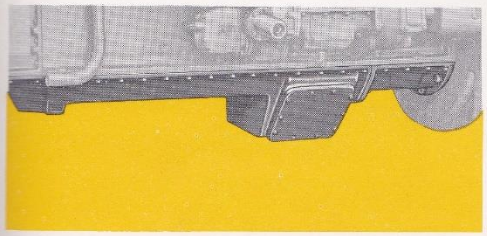
OIL PANS



Shallow Oil Pan

The shallow oil pan is standard on all engines except the D13000 Industrial Engine. It is an attachment for the D13000 and is used for most stationary installations. The deep sump and the front and rear scavenge lines are eliminated, making possible a more pleasing appearance. This oil pan should not be used where angles of operation greater than 8° to front or rear or 20° laterally are encountered.

D13000 Ind.

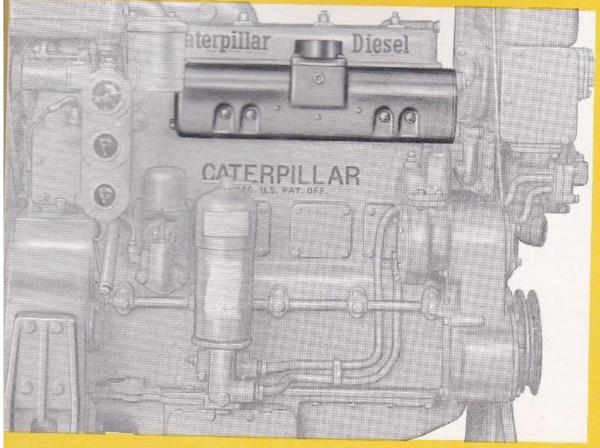


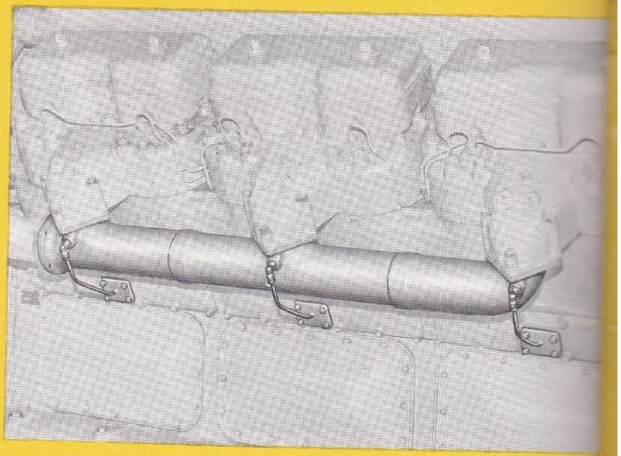
Deep Oil Pan

The deep oil pan should be used when your engine must be operated at angles greater than 17° from the horizontal. It provides a deep pan with necessary scavenge pumps to permit operation at angles up to 25°.

D17000 Ind. D337 Ind. D326 Ind.

EXHAUST AT





Water-Cooled Manifolds

When you use a water-cooled exhaust manifold, jacket water is circulated around the exhaust manifold, greatly reducing the amount of heat radiated from the manifold and avoiding painful burns to personnel if the manifold is accidentally touched. This reduction of heat radiation helps to make conditions more comfortable in the vicinity of the engine. A standard radiator should not be used with the water-cooled manifold since the increased heat delivered to the jacket water can not be dissipated by the radiator. A large capacity radiator or a heat exchanger should be used.

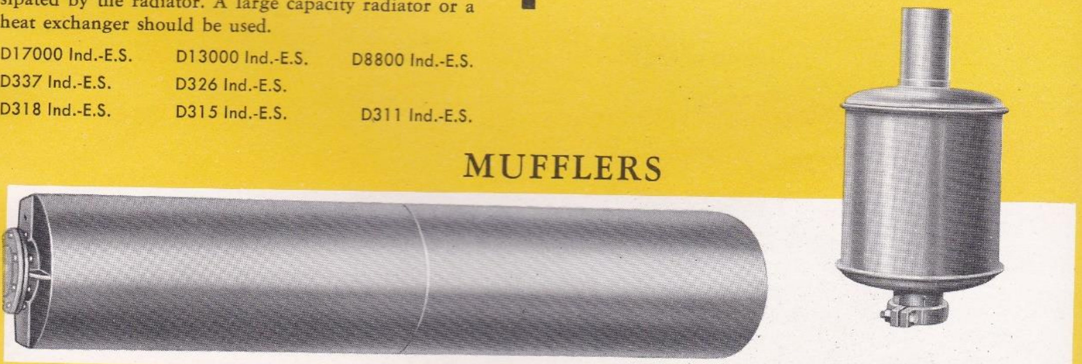
D17000 Ind.-E.S. D13000 Ind.-E.S. D8800 Ind.-E.S.
D337 Ind.-E.S. D326 Ind.-E.S.
D318 Ind.-E.S. D315 Ind.-E.S. D311 Ind.-E.S.

Dry Manifolds

The standard manifolds on the D397, D386, D375 and D364 Engines are water-cooled. If the size of radiator used must be kept to a minimum, such as in an excavator, dry type manifolds may be used. These dry manifolds are durable cast iron.

D397 Ind.-E.S.-Mar. D386 Ind.-E.S.-Mar.
D375 Ind.-E.S.-Mar. D364 Ind.-E.S.-Mar.

MUFFLERS

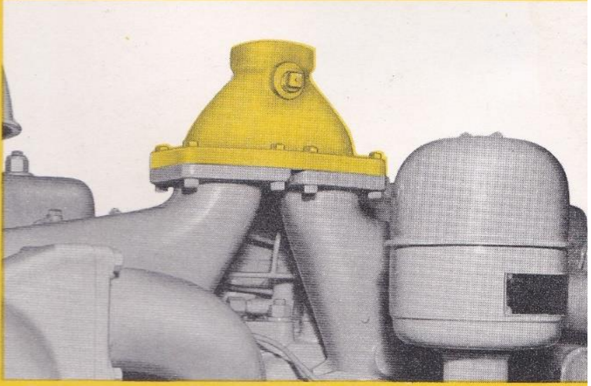


Where high degree silencing is not required but you desire to reduce the sharpness of the engine exhaust, the small muffler shown here should be used. It mounts on the exhaust stack. For those installations where exhaust noises are objectionable, larger mufflers are offered for silencing. This group includes a 24" length of flexible exhaust pipe, a 90° pipe bend, and miscellaneous equipment for convenience in installation. Both types of mufflers are offered for all "Caterpillar" Engines. The smaller type muffler is also offered for all starting engines.

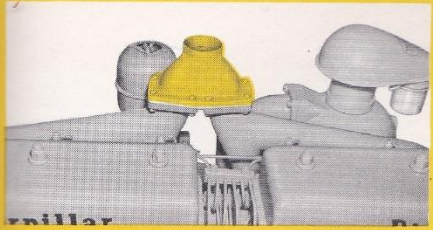
TACHMENTS

Manifold For Thermocouple Installation

In many installations it is desirable to know the exhaust gas temperature of your engine. Since the exhaust gas temperature gives an approximate indication of the load being carried by an engine, an attachment showing this temperature is particularly useful in instances where two or more engines are connected to a common load. These manifolds with provisions for thermocouples or thermometers are offered for the D17000 and D13000 Industrial and Electric Set Engines. The D17000 may be obtained with provisions for 8 thermocouples. The D13000 has 6. Standard on D397, D386, D375, D364.

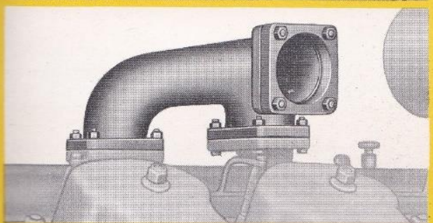


EXHAUST ARRANGEMENTS



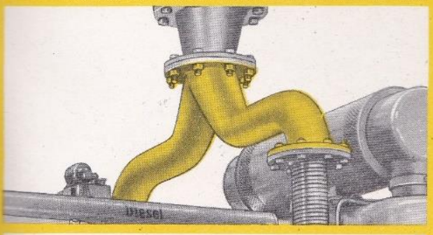
Manifold "Y" Adapter

The standard "Y" adapter for the D13000 is a welded piece. A cast iron "Y" adapter of the type shown here provides a flanged connection and thermocouple opening and is available as an attachment.



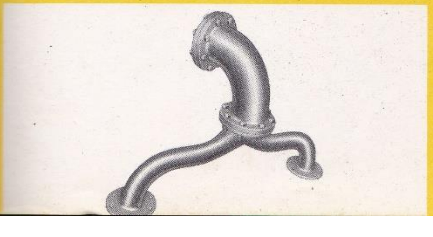
Manifold Connection For D17000

In cases where a horizontal exhaust is required for the D17000 Engine, this attachment should be used. It may be installed for either right or left discharge and provides a bolting flange for connection of exhaust piping.



Manifold Connection For D397, D386, D375, D364 Engines

An attachment for "Caterpillar" D397, D386, D375, D364 Engines, this exhaust manifold connector provides a common outlet for the dual exhausts. This common common outlet allows the use of a single, vertically mounted muffler.



Manifold Connection For D397, D386, D375, D364 Engines

The manifold connection for the D397, D386, D375, D364 Engines (shown here) permits the horizontal mounting of mufflers.

EXHAUST ATTACHMENTS

Spark Arrester

On installations near dry underbrush, timber, grain, wooden structures, oil fields, or storage tanks for inflammable materials, there is a possibility of costly or disastrous fire from an abnormal exhaust spark. The spark arrester blocks the escape of a possible hot carbon particle from the engine and practically eliminates all danger of fire from this source. The chamber collecting the carbon particles is easily cleaned. This low cost attachment is cheap insurance when compared with the possibility of loss by fire.

D17000 Ind.-E.S. D13000 Ind.-E.S. D8800 Ind.-E.S.
D318 Ind.-E.S. D315 Ind.-E.S. D311 Ind.-E.S.

Rain Trap

If your engine is to work out-of-doors, the "Caterpillar" rain trap offers good protection against damage to the engine by rain, sleet, or snow entering the exhaust pipe. This sturdy attachment is solidly constructed with no moving parts and is designed so that it will not increase the exhaust back pressure. The trap clamps over the end of the standard Diesel or starting engine exhaust pipe.

D13000 Ind.-E.S. D8800 Ind.-E.S.
D318 Ind.-E.S. D315 Ind.-E.S. D311 Ind.-E.S.

AVAILABLE ATTACHMENTS FOR YOUR "CAT" DIESEL ENGINE

ATTACHMENT	Page	D397	D386	D375	D364	D17000	D13000	D8800	D337	D326	D318	D315	D311
Arrester, Spark	30					I E	I E	I E			I E	I E	I E
Bases: Electric Set	5					E	E	E	E		E	E	E
Extended	4					I	I	I	I	I	I	I	I
Short	4					I	I	I	I	I	I	I	I
Battery Set	15	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
Bolts, Foundation	6	I E	I E	I E	I E	I	I	I	I	I	I	I	I
Clutches: Enclosed	9	I	I	I	I	I	I	I	I	I	I	I	I
Open	9					I	I	I			I	I	I
Compensator, Force	23					I	I						
Compressors	16	I E M	I E M	I E M	I E M	I E M	I E M	I E M	E M				
Control, Governor	22-23	I M	I M	I M	I M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
Coolers, Lubricating Oil: Air	14					I E	I E	I E	I	I	I E	I E	I E
Water	14					I E	I E	I E	I E	I	I E	I E	I E
Couplings, Flexible	10					I	I	I			I	I	I
Crank: Diesel	17					I E M	I E M	I E M			I E	I E	I E
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Doors, Hood	7					I	I	I	I	I	I	I	I
Drill Rig Governor Control	21					I	I						
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Heat Exchanger	12	I E M	I E M	I E M	I E M	I E	I E	I E	I E	I E	I E	I E	I E
Heater, Gas Fired Water	13	I E	I E	I E	I E								
Hood and Dash	6					I	I	I	I	I	I	I	I
Instrument Panel	8	M	M	M	M	M	M	M	M	M	M	M	M
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Mufflers	28	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
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Prescreener	20	I		I		I	I	I	I	I	I	I	I
Pump, Auxiliary Water	13	I E	I E	I E	I E	I E	I E	I E	I E	I E	I E	I E	I E
Pump, Bilge	11	M	M	M	M	M	M	M	M	M	M	M	M
Pump, Fuel Priming	25	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
Pulley, Crankshaft	11					M		M					
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Rain Trap	30						I E	I E			I E	I E	I E
Rheostat for Exciter Field	21	E	E	E	E	E	E	E	E		E	E	E
Safety Devices: Alarm Switch	18	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E	I E M	I E M	I E M
Shut-Offs	18	I E	I E	I E	I E	I E	I E	I E	I E	I E	I E	I E	I E
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Starting Aid, Ether	17					I E M	I E M	I E M	I E M	I E	I E M	I E M	I E M
Starting Systems: Air	16	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M		I	I	
Electric	15	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
Elec. for Starting Engine	15					I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
Supports, Tractor Type Engine	5						I						
Tachometer	8	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M	I E M
Tanks: Expansion	12	I M	I M	I M	I M			M			M	M	M
Fuel	7					I E	I E	I E	I E	I E	I E	I E	I E
Thermometer	20	I E	I E	I E	I E	I E	I E	I E	I E	I E M	I E	I E	I E
Vibration Damper	6					E	E	E	I E	I E	E	E	E

Note: I—Industrial; E—Electric Set; M—Marine

YOUR "CATERPILLAR" DEALER WILL BE GLAD TO HELP YOU CHOOSE THE ATTACHMENTS THAT WILL BEST FULFILL YOUR NEEDS

Your "Caterpillar" Dealer is part of a far-reaching organization whose strategic locations and factory trained servicemen assure you of the best in service for your equipment. Parts, service, and a wide range of equipment available from one source, and the responsibility of one manufacturer are factors which result in utmost dependability and more profit for you.

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Cleveland, Ohio

930 KINNEAR ROAD
Columbus, Ohio

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2807 REYNOLDS ROAD
Toledo, Ohio

4000 LAKE PARK ROAD
Youngstown, Ohio

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